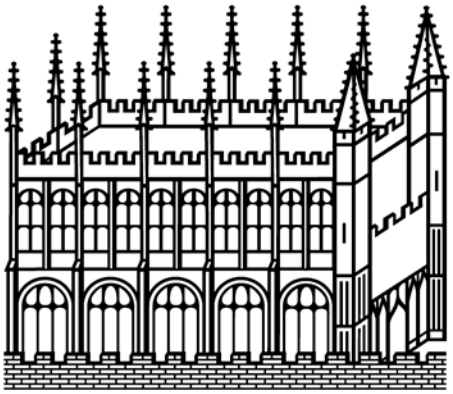

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By C. HANDFIELD JONES, M.B.Cantab., F.R.S.
PHYSICIAN TO ST. MARY'S HOSPITAL.

MENINGITIS not depending on tuberculosis or local injury is certainly somewhat a rare event in hospital practice. I avail myself, therefore, of the opportunity which has recently occurred to draw your attention to this malady, and I am the more disposed to invite you to join with me in considering the subject, as an affection of this kind has recently prevailed epidemically on the Continent and in Ireland, and may very possibly be met with here some day :—

Before I proceed to the details of our cases, let me recall to your minds some of the principle features of the disease. (1.) As to its *morbid anatomy*. The seat of the inflammatory effusion in most cases is the pia mater, and the deep surface of the visceral arachnoid. Hence it follows that the grey cortical matter of the hemispheres must be seriously affected in every instance of extensive meningitis, as it is impossible that the delicate cell-growth of the nervous centre can maintain its normal nutrition, while the vascular woof from which its nutrient vessels proceed is inflamed and infiltrated with fibrinous and puriform effusion. Mere serous effusion in this situation is of course no sign of inflammation. (2). The *symptoms* of meningitis are very much what you might expect from your knowledge of its morbid anatomy, pain in the head, delirium, coma, convulsions, paralysis in various grades and modifications. Of these and their associates, pain, irritability, restlessness, delirium, strabismus, and vomiting, are the earlier; and unconsciousness, palsy, and anæsthesia, the later phenomena. Yet, there is great variability in this respect, and, as in the cases I shall relate to you, and one detailed in the manual of "Pathology" by Dr. Sieveking, unconsciousness may set in almost suddenly and unexpectedly. (3.) As to its *causes*. Exposure to solar heat, aural disease, the poison of the exanthemata, those of typhus and malarious fever, and as it now seems that of influenza, are those which you are most likely to meet with. You will remember my stating to you in the systematic lectures that it was not yet fully ascertained whether epidemic cerebro-spinal meningitis was *au fond* typhus fever with unusual cerebral and spinal complications, or a disease *sui generis*. There is no doubt that the occurrence of meningitis is a very marked feature of some typhus epidemics, but, though we may be ready to admit a certain relation of the disorder in question to typhus, I am very doubtful as to the correctness of the conclusion, that it is the same and nothing more. I rather believe that the truth is, that typhus shades off and passes by transitional instances into various maladies, which are usually regarded as more or less completely identical with common inflammation ; of which meningitis, pneumonia, and dysentery may be mentioned as examples.

Case 1.—S. B., æt. 64, admitted March 8th, 1867. She is a thin, rather tall person; states that she has been ill eight weeks, and laid up three, during which latter period she has had much vomiting and purging, all food being rejected directly. At first she had a bad cold, with much cough and expectoration. At present she feels very sick, with a sour, bad taste in her mouth ; her tongue is a good deal coated; diarrhœa has ceased the last three days; pulse 94, weakish ; urine very high coloured. Very thirsty ; no appetite. Coughs a good deal, and expectorates thick matter. Sleep disturbed by cough. No marked physical signs in chest. Heart's sounds normal. ℞ Acidi nitrici ℥ iij. + spt. æth. chlor. ℥ x + acid hydrocy. dil. ℥ iv. + tr. calumb. ℥ x. + aq. ℥i. *ter die.*

10th.—Sherry, 5 oz. Urine of 9th pale, sp. gr. 1019, not albuminous, thick with lithates.

12th.—Adde mist. quin. disulph. gr. iss.

16th.—Doing very well ; tongue is nearly quite clean ; good breathing all through both backs. She went on well for a week. On

24th.—After having been to chapel in the hospital in the evening, she got shivering, succeeded by fever, and this by vomiting. The next day I found the sickness was less, the appetite was lost, there was much thirst, and a coated tongue; temperature 103°·2; pulse 105, very weak. Breathing full and good in all right lung; in left it was everywhere more or less weak, but there were no morbid sounds. The sherry was increased to 8 oz. ; effervescing ammoniated saline, with 4 grains of ammonia in excess, ordered 4tis horis.

26th.—Pulse 90, weak. Hands feel tolerably cool. Bowels rather relaxed. Temp. 100°·4.

27th.—Is very weak. Pulse very feeble, 108 ; had a good night ; is a little flighty to-day ; cough quieted by pills of Indian hemp ; temp. 99°·68. Brandy, 6 oz. Acidi nitrici ℥ 3 + quinæ disulph. gr. ij. + spt. æth. chlor. ℥ x. + aq. ℥i. *quater die.*

28th.—Was quiet during the night, but became very thirsty this morning, and since noon has become quite excited and delirious, rolling her head constantly from side to side, moaning, and quite unconscious. All the afternoon she had vomiting, and much nausea this morning. Breathing weak, but without rales, in both backs. T. 103°·28 ; pupils of medium size ; pulse 120, of good size, not very weak. Tr. opii ℥ 50 in enemate statim.

29th.—Was quieter after the enema. She appeared better from 7 to 10·30 P.M. of last night, after which she became rapidly worse, more delirious and sinking. At present (2½ P.M) appears moribund ; head is thrown back at each inspiration ; the expiration is moaning ; there is tracheal rale ; pulse very weak, 130 ; quite unconscious ; had a second opiate injection at 8·30 P.M. yesterday, and has taken brandy pretty freely. Died at 4 P.M.

Post-mortem.—Brain was healthy in texture, but there was well-marked seropurulent effusion in the pia mater of the anterior and upper part of both hemispheres, and of the cerebellum and pons and median excavation of the base. The posterior cerebral lobes were comparatively unaffected. There was no fluid in the ventricles, nor any other disease of the brain than the meningitis. The lungs were healthy, except some pneumonic congestion of recent date. The heart was small. Two of the semi-lunar valves of the aortic orifice were atheromatous, and bulged into aneurismal pouches. Liver normal. Spleen very large, weighed 17 oz. It was so rotten that it would hardly bear handling. The bladder contained a good deal of urine, which was turbid with lithates, of sp. gr. 1021 ; contained no sugar. Kidneys slightly granular on surface, one contained a fibrinous deposit.

There can be no doubt that the malady with which this patient was suffering when she was admitted was influenzal catarrh. Both the great mucous tracts were severely affected, or rather had been, for the intensity of the disorder had somewhat subsided when she came under our observation. The tongue was much coated, and I took occasion to remark that you would have an opportunity of observing how this coating would clear away under the use of nitric acid and light tonics, without the administration of a particle of mercury. A foul tongue, I told you, might depend on hepatic derangement, but perhaps, more often than otherwise did not. I stated that what it implied in all cases, except where stomatitis exists, was catarrhal disorder of the mucous membrane of the stomach, which very commonly occurs as a primary affection. Of course obstruction to the portal circulation, which must necessarily result from imperfect secretion of bile, will aggravate materially a catarrhal condition of the gastric mucous membrane, but it is nevertheless certain that very positive evidence of hepatic derangement may exist, together with a clean tongue and a well-digesting stomach. This I have noticed particularly in jaundice. Do not, therefore, be too ready to give blue pill, or the like, when you see a foul tongue ; they are depressing agents, and may, if given inappropriately, be hurtful rather than beneficial. At the

same time, do not withhold them when they are really called for. I remember very well a bad case of severe rheumatic pericarditis and pleurisy in an extremely asthenic female, whose appetite and digestion were in a very unsatisfactory state, and whose condition was sufficiently disquieting. I had foreborne the administration of calomel (that well-proved but much abused remedy) for fear it might depress her still further, but at last, seeing that no ground was gained, I ventured on a small dose, and the improvement which followed was most marked; she began to take food, and made a good recovery. The relapse which occurred was quite similar to the original attack—there was the same prostration, vomiting, coated tongue, and bronchial affection, with pyrexia. This subsided again; the temperature fell from 103°3 on the 25th, to 99°68 on the 27th, and there appeared no reason to apprehend anything worse than a somewhat tedious convalescence on account of her great weakness. The next day, however, a new scene opened—the temperature rose again to 103°3, the pulse was 120, and apparently stronger than it had been two days before; there was delirium and unconsciousness. These symptoms continued, and she died in about twenty-eight hours from their first appearance. The autopsy disclosed the existence of a rather rare affection — simple meningitis, by this term implying, that the inflammation of the pia mater was of a non-specific kind, and not dependent on, or associated with, the presence of miliary tubercles in this membrane. As far as our evidence extends, there seems to me no reason for regarding the intra-crannial inflammation in this instance as having any other causation than those of the intra-thoracic or abdominal viscera, which were evidently of atmospheric origin. The fibrinous infarctum in the left kidney was most probably connected causatively with the diseased state of the aortic valves, and had no relation to the meningitis. There need be no suspicion that the second febrile attack was one of typhus, not only because there was no eruption, and the aspect of the condition was very unlike that of low fever, but especially because the temperature fell on the third day to the normal figure, and rose again considerably when the intra-cranial inflammation was established. Typhus may certainly give rise to meningitis, but we may safely exclude it from all concernment here. The autopsy sufficiently explains the delirium and unconsciousness by showing us that the organs of the intellectual actions were gravely and extensively affected by the inflammation. This explanation will not, however, apply to all instances where the symptoms are very similar, as Andral has very clearly shown. I will defer some further remarks on this head, as well as on that of treatment, till I have narrated to you another case.

Case 2.—The subject of this is a man, æt. 57, whom I was asked to see in consultation at ten P.M., February 10. His regular medical attendant told me that he had been under his observation about fifteen years, and that he had never presented any signs of renal disease, though the urine did not seem to have been particularly examined. For several years he had been deaf with discharge from the ears; and some two years ago he had had an epileptic fit, or something like it. He had been depressed in spirits recently, and had felt a presentiment that his end was approaching. The day before I saw him he had been taken ill with severe pain in both ears, for which leeches were applied with relief. Pus and blood were seen to escape from the left auditory meatus. When he was visited at ten A.M. the following day, he was sitting up in bed, cheerful, free from pain, and was reading the newspaper. Two hours later pain came on again, and a dose of calomel was given. He was quite conscious at four P.M. I found him perfectly unconscious at my visit, restless and struggling; no paralysis; the pupils fixed; the pulse tolerably strong and regular. Before I left the house he had a well-marked paroxysm of convulsions. At mid-night he was pulseless, or nearly so, with tracheal rale, wholly insensible, and died in the course of a few minutes. The convulsion had not recurred.

Post-mortem examination on 13th.—Head only examined; the veins of the posterior part of both hemispheres were full of dark blood; the cerebral membranes were everywhere healthy, except at the anterior part of the circumferential region of the cerebellum on the left side, where it lies adjacent to the posterior surface of the petrous bone; here the arachnoid was smeared over with a small amount of puriform fluid, and the tissue appeared to be unduly red. The dura mater lining the spheno-occipital basilar groove was darkened and discoloured, and there was turbid darkish serum in the occipital fossæ, welling up out of the spinal canal. The dura mater lining the petrous bone did not appear altered, and we could not find any disease of these bones on their inner surface. The encephalon everywhere appeared normal.

This case contrasts with the preceding in the much shorter space of time during which manifest symptoms of cerebral disease existed, and in the much smaller amount of meningitis discovered by the autopsy. In fact, I think it cannot but excite your surprise that so grave and rapidly fatal symptoms should have resulted from such a small amount of lesion. I am speaking, of course, of the recent inflammatory mischief, for, with regard to the old standing disease in the tympanic cavities, there seems no reason to think that the brain resented its presence on the last day of life any more than it did on the day previous. On reflection, it will appear evident to you that so small a focus of disease could not possibly produce the symptoms which existed by the injury which it inflicted on the *tissue* of the organs whose functions were abolished. A small patch of inflamed arachnoid, covering a part of the cerebellum, could not give rise to delirium, unconsciousness, and fatal convulsions by its local influence, for these phenomena are not produced by simple removal or irritation of the cerebellum. No doubt the local mischief evoked the phenomena by *the irritation* which it exerted on the hemispheres and the excitable districts, acting, in fact, just in the same way as a wandering wisdom tooth, a tænia in the intestines, or any other extra cranial cause might have done. Dr. Brown Séquard has forcibly advocated this view in some of his published lectures. He says—"An irritation starting from the part inflamed in the brain, like an irritation from the various membranes and viscera, may act upon some other part of the encephalon, producing there some peculiar kind of alteration which causes either paralysis, anæsthesia, delirium, insanity, epilepsy, &c." Andral, long before, in his "Clinique Medicale," expressed an opinion nearly to the same effect. His words are, "The different facts which have now been analysed lead to a singular conclusion—viz., that with similar lesions of structure in the dead body, the most varied disturbances in the power of motion are found to coincide; in the greater number of cases, whether there has been convulsion or paralysis, the structural lesion after death will be the same. Thus, beyond that lesion which the scalpel points out as having its seat in the membranes of the brain, there is in the brain itself a modification not recognisable by the anatomist, which is produced to be sure by the lesion of the membrane, but which, variable in each individual, is the real cause of all the functional disturbances which are seen to supervene." Again, "in those cases where the disturbance of the intelligence depends on an affection of the meninges, the cause of this disturbance can no more be referred to any specific alteration, than that of motion or sensation can, and the diversity of the lesions of intelligence, as well as those of sensation and motion, can only be accounted for by referring it to the different susceptibility of the brain to impressions," p. 55, 59. I think these quotations clearly show that Andral was quite aware that many of the phenomena of meningitis were the result, not of a direct local action on the cerebral tissue adjacent to the inflamed membrane, but of a morbid impression conveyed to parts of the brain remote from the focus of disease, and that the effects produced varied in different instances according to the degree in which the irritation was resented by the nervous tissue.

Accepting, then, these views of Brown Séquard and Andral as correct, I proceed to justify to you the treatment pursued in the first case—viz., the administration of opium. At first sight it sounds preposterous to give a patient who is lying in a semi comatose condition a drug which in toxic doses produces fatal coma itself. But, first, it is not proposed to give opium in toxic doses; secondly, opium is an approved remedy in some inflammations, as in peritonitis, and checks exudation, as it plainly does in intestinal catarrh, and it is therefore conceivable that it may benefit the meningitis; and thirdly, as there is reason to regard the fatal coma and asthenia, as depending in many instances on irritation conveyed to the respiratory and cardiac centres from the inflamed membranes, a drug which should render the nervous tissue less impressionable might be of great service. In our first case I do not think there is any evidence that the fatal event was accelerated by the opium, death did not occur until nineteen hours after the second enema. Perhaps, however, smaller and more frequent doses might have had a better effect. In the second case no opium was given, but I cannot help thinking that subcutaneous injection might have proved serviceable. It is tolerably evident that the unconsciousness and convulsions were dependent on irritation, and if the nerve tissue could have had its undue susceptibility blunted, things might have gone better. The great fatality of meningitis, under ordinary methods of treatment, justifies, I think, a resort to the means proposed in cases which appear suitable. The points which I should regard as indicative of the probable utility of opium are, predominance of nervous disorder, the phenomena setting in with suddenness and severity, absence of marked hyperæmia of the head, weakness of pulse, and a general asthenic condition. In the following case, which I proceed to narrate, where stupor was a marked feature, small doses of opium were given for several days, at least without any ill effect.

Case 3.—M. G., æt. 21, female, admitted April 1st, 1867. She is an errand girl; her mistress states that when first attacked, three days ago, she was convulsed in the face, and suddenly became stuporous; she had been ailing some good while with colds and cough. After she recovered she told us that she remembered being very sick at breakfast time on March 30th, that she went to a doctor's, who gave her pills and castor oil, and desired her to go to bed immediately, which she did, after which all was a blank till she found herself in the hospital. When I saw her, I noted that she was very stuporous and drowsy, could with difficulty be roused or made to comprehend. She put her hand to her left side as if she had pain there. The expression of her face was bewildered (attonitus); no eruption on abdomen, no ilio-cœceal tenderness; tolerably good resonance in both backs, no morbid sounds, breathing weak; tongue clean, and tolerably moist; eyes fairly clear, pupils of medium size. Temperature 98°24; pulse 88, weakish, irregular occasionally; respiration 18; lips pallid. S. diet, beef-tea, milk. Camphoræ gr. i. + pil. hydr. gr. ij. + opii. gr. ¼ in pil. *quater die.*

2nd.—Passes everything in bed, is continually drowsy and stuporous, but seems a little more conscious, shows her tongue on being pressed to do so. Temperature 99°5; pulse 70, of good volume.

4th.—Pulse 87, regular, soft; tongue more dry and coated; no eruption; urine copious, sp. gr. 1030, full coloured, not albuminous, nitric acid throws down lithates quickly. Temperature 100°4; is much more conscious.

5th.—Still very drowsy, evacuations still passed in bed; has spoken when questioned, says she has no pain; sighs at times, generally when waking up; no salivation. Pulse 90, of fair force; tongue red, cracked, not very dry. Pl. c. pil.—pot. iodidi. gr. iv. + ammon carb. gr. iij. + decoct. cinch. ℥i. *quater die.*

6th.—Keeps taking the blister off when she feels it stinging; much stupor still; pulse 75, of good force. Temperature, 99°68.

7th.—Is quite awake and conscious; blister has risen well since last evening, and she has been better since. Temperature 99°32; pulse 110; gums red and swelled; bowels open very frequently this morning; omitte pil.

10th.—Doing well, quite conscious. Chop, port wine 3oz. From this date her recovery went on almost without a check, the dose of pot. iod. being at first diminished, and the mixture changed after ten days for mist. quinæ. + syr. ferri. iodid. She left the hospital quite well May 12th.

Much uncertainty must exist as to the true nature of this case, but I incline to consider it one of limited meningitis. I ground this opinion more on the quality of the pulse, the state of the urine, and the apparent good effects of the mercurial and blister, than on the direct cerebral symptoms—the vomiting, facial convulsion, and unconsciousness. These might have been the result of a 'coup' of influenza, but then there would have existed signs of general prostration, and the remedies employed would probably have proved injurious. At the same time the inflammation could not have been extensive, or the temperature would have been more elevated. I feel, however, that cases of this kind very often present the most exceeding difficulty in diagnosis, and this not only in determining what kind of organic disease may be present, but whether any at all exist. Of this I intend shortly to offer you some proofs.

A PAPER ON PYTHOGENIC OR ENTERIC FEVER,

IN WHICH IT IS ATTEMPTED TO DISPROVE ITS COMMUNICABILITY OR IDENTITY WITH TYPHUS.

By W. ST. JOHN COLEMAN, L.R.C.P., L.R.C.S.I.,

MEDICAL OFFICER MILTOWN-MALBAY DISPENSARY DISTRICT, FORMERLY CLINICAL CLERK MERCER'S AND SIR PATRICK DUN'S HOSPITALS, DUBLIN.

To whatever pitch of excellence it is intended that "Pathological Anatomy" should elevate the science of Medicine, it can never be competent to it to detract from the value of clinical observation, or usurp its functions in the study or treatment of disease. We may demonstrate the locale of a poison in the system, be aware of its nature, and thereby discover the manner of induction; but we cannot lay down fixed rules for the exhibition of certain states, their continuance, or result. It is well to know that certain pathological conditions produce the same diseased phenomena, and may be for this concurrence of circumstances referrible to the same "type." That a long train of diseased states, irreconcilable, we take it for granted, in their minutiæ—many of them, at least—present still characteristics enough in common to be classed as a "whole," differing in the development of one or other of the symptoms. It must be conceded, however, that climate, constitution, and treatment have not a little to do with changes in the admittedly same disease. The description of a diseased state as it presented itself to observers in other countries is only recognizable as agreeing in some—it may be the majority—of its symptoms with an identical state in this. The remarkable differences presented by patients at the same time and place, is common to the observation of all; and that treatment has its influences on the suppression or development of symptoms is not likely to be denied. There are diseases, too, which, more than others, are liable to the influence of circumstances. Epidemic diseases. And these, too, are capable of subdivision with respect to the regularity or otherwise with which they may be reconciled to any one "description." It must be admitted to the subject of this paper the first place in a category such as is provided here. Not only in the difference of "descriptions" of it, in the histories of its advents, or the manner of its origin and spread, far more than this, its character, whether contagious or otherwise, is matter of dispute, while, further, *its individuality is denied.* Considering the many authorities calculated to adjudicate, and the immense amount of information ready to be brought to bear upon the vexed questions of "fevers," I should be slow to obtrude any opinions of mine; but as it is ad-

mitted to every man his right of individual observation and decision respecting the matters, of all others with which he comes in contact, it may be permitted me to record the inferences deducible from the treatment of nearly 200 cases of fever of the enteric or typhoid type. I, thus at the outset declaring myself as coinciding with the class who believe in the non-identity of the two great types of continued fevers, claim credit, nevertheless, for the impartiality with which I studied the cases recorded here. Setting aside the principles instilled in me by education and earlier observation, I did not enter the field of disease culling those phenomena which coincided with my opinion, or which flattered the prejudices of class.

OF THE LOCALITY IN WHICH THE FEVER APPEARED.

Consisting of upwards of 35,000 acres, my district stretches for five or six miles along the Western coast of Clare, hill and bog alternating the surface inland. The seaboard is bold and rocky, indented here and there by sandy-bottomed bays and creeks. The level is high above the sea, while the character of the soil is moor, sandy gravel, and clay. Two or three small rivers flow from the mountains, situated about midway in the district, towards the sea, and many more varying in size, and dependent on the season, run into the many lakes that stud its eastern portion. The village with which we have more particularly to do lies about a mile and a-half from the shore, at the watering-place of Spanish Point. Its population is about 1400, while that of the entire district may be estimated as between 10,000 and 11,000. There are no manufactures, the population, with the exception of the villagers, being entirely agricultural ; and this leads me to speak of a matter of no little moment as considering health. A chief manure for their fields, and the moors that yearly are happily becoming gardens, is the sea-weed thrown in much profusion on the shore. In this there is daily traffic, and the potato, their staple food, must be deeply impregnated with matter that contributes so largely and generally to its growth. Here we have little or no scrofula, no enlarged glands or ulcerated necks ; the affections of the chest are mostly bronchitic, phthisis being, happily, very rare. The inference is pertinent—Is it that the iodine contained in the sea-weed is absorbed by the frequent intercourse, or from the food? But to return. A small stream at one end of the town contributes but slightly to drain it, and *the sewerage is ineffectual and deficient.*

OF THE ADVENT OF THE FEVER.

The month of April, 1865—an unusually warm one—found my district free from diseases of the zymotic type, but in a little while powerful influences to diseased states came into play. Manures, the collective refuse of preceding months, became needed for agricultural purposes. Dung heaps were removed—yards cleaned out—drains opened up. I cannot deny myself the satisfaction of looking back upon my reports to the Committee of Management of my district at this time. Alive to every probability, I could not but deduce from the foregoing state of things, but that typhoid fever was likely to presume. On the 21st of April, I saw E—— S——, of Sandymount, two miles distant from the village, in the early stage of enteric fever, and the same evening, three children of one family were prostrated by gastric fever in the village itself. The first named patient was a "dealer," whose avocations necessitated her spending a portion of her time in the village daily. Next day, E. H., aged 36, Flagroad and a policeman succumbed.

The Relief Register, in which is entered the names of all patients attending at dispensary, or visited at their homes, bears an increasing ratio after this date. Of the vast majority common to the village, its surroundings nevertheless, suffered also ; whilst individual cases continued to occur throughout the district, independent of local connection or distance from the original source of disease. Under the different headings hereinafter assumed, those individual instances are freely illustrated.

OF THE CAUSE.

That defective sanitary arrangements lay at the bottom of this there is no doubt. They were only too plain at the time. Yards in which the heaped up "refuse" impeded effectually the hitherto sluggish sewerage, drains open only on their superficial aspect for the readier emanation of effluvia ; wells, favouring by their low situation, the determination of liquid contamination, whilst the avenues leading to them, from their occasional loneliness, favoured the deposition of animal and other filth.

So far for causes predisposing—the exciting ones are rampant enough in the dissolving showers and suns of April. Strange suns for such a season they were too. They played upon the collected refuse till the showers were expelled again in vapour—vapour surcharged with every element of putrefaction and disease. The observations referring to "drains," common to yards and houses, are equally applicable to the main sewers of the village. Subsequent examination demonstrated this to a pitch beyond surmise. *The covering flags of most of the principle drains, rested upon the mud and refuse matter, with which they were choked.* Transit through them of any matter, solid or liquid, was impossible, and the yards held the obnoxious material it was intended the sewers should convey. The unusually warm suns of April, 1865, had excellent basis of operation here, and the campaign against health, which naturally followed, was commensurate with the material so supplied.

First of all, the children were attacked. Gastric fever became rapidly prevalent at the "Chapel end" of the town. The juvenile members, three in number of one family, were prostrated on the 21st, and four days following a similar number in a house opposite succumbed. Others in the immediate locality followed. Now, in and about these houses, the sanitary arrangements were wretched, *and there are no main sewers in the vicinity.*

Among the adult population, and of these, more especially the females, fever of the pythogenic type very shortly after this obtained, nor was it until it was established a week or ten days, that the men and "grown up" boys were subjected to its influence. The case of the policeman, be it admitted, is an exception to this as a rule.

I wish here to account for the order of invasion in the manner which appears most plausible to me.

I hold that the children succumbed first, because of their more intimate connection with the diseased source.

Their mothers and sisters came next. Domestic duties chained them to the vicinity of disease. Their daily avocations necessitated proximity to these "heaps" and "fetid pools," and for them was no counter-balancing influence of healthy exercise and air.

These observations point to the reason why, in my opinion, the adult male members of the families enjoyed, so far, an immunity from disease. Subjected to poisonous influence for but little more than the period allotted to sleep (worst of all times admittedly), they enjoyed, for the remainder of the twenty-four hours, active healthy employment in the open gardens and fields. They ate too of the choice and staple portion of the family daily meals—picked out with rare unselfishness for them whose labours had supplied it.

But the little ones grew ill, and the mothers after them. The defective sanitary arrangements of the yards and sewers obtained also on the cabin floors. The tired labourer sat no more at the fireside, which a helpmate's hands had hitherto made cheerful for his coming. His children argued no longer their daily quarrels on and about the father's knee. Forced to become their nurse now, not only was his healthy occupation denied him, but the emoluments consequent upon it cut off ; while with no means to buy, it grew less in quality as well as quantity, his daily food ; and thus, subjected to the increasing influences of the poison, he became hourly less able to combat it, until at last, the balance betwixt disease and health declared in favour of the former, and he too went down.

I write of matters lively in my recollection now. I have

no need of reference to my "case-book" for particulars of cases illustrating instances like these. I sat one summer's evening in a cabin up the mountains, where the father lay delirious. Four of his children lay in different positions, likewise "fever stricken," whilst the fifth, an infant, tugged at the lank breast of the mother, who, herself, in the height of the disease, endeavoured unsuccessfully, to battle with it for their sakes. This woman's brothers looked through the open doorway at her, from a distance, but would not cross the threshold to keep down her delirious husband, or moisten her own parched lips. I am asked to believe that this fever and typhus are identical. Now, I submit, that here were circumstances most favourable to the development of the latter, and they never supervened. It has been my fortune, further, to have seen cases of enteric fever in almost every phase of life, under circumstances the most favourable as well as the most adverse, whose wretchedness and poverty were as well-marked, as in any instance of which I have ever heard or read, and yet I never met a case in which the symptoms partook of those characteristic of typhus. Enteric fever never passed into typhus, even where the agents, admitted to favour the production of this latter, were rife.

The disease continued to infest the village during the months of May and June. In July the numbers were but few; but early in August it again became very prevalent, and active sanitary arrangements had to be instituted for its arrest. The committee of management, with a small sum afforded by the guardians, proceeded to whitewash all the cabins of the poor. This sum, however, being insufficient, was speedily supplemented by a general subscription, and the sanitary measures, so far, completed. The houses and yards were rigidly inspected, objectionable matter removed; some sewers opened and cleaned, and lime plentifully distributed in disinfection. The fever now markedly abated, and though isolated instances continued to occur during the following two or three months, the disease, as endemic, may be said to have ceased early in September. And here it will scarcely be considered out of place to say something of sanitary arrangements subsequently, in fact recently adopted. They have bearing upon this paper, albeit the proof afforded be but negative. I spoke of the sewerage as not only "ineffectual," but "deficient," and statements which have in the meantime intervened refer more particularly to this. Actual examination of each of the main sewers demonstrated the same disagreeable fact. Semi-solid jelly-like material filled all of them, even unto the covering-flag, and rendered them as passages perfectly useless. It was evident that simply cleansing them only left it a matter of time for the "blocking-up" to maintain. Absolute flushing could only be depended on, and "flushing" was, fortunately, easily obtained. By continuing the sewers on either side of one street to a stream running at right angles with it, we have succeeded in bringing two streams of water, not only flushing it, but, following the course of the old sewers, again uniting, pour through the main outlet of the village into the meadows beyond. Two minor streams are similarly utilized, keeping continually permeated with water the sewers in their respective streets. We remember the epidemics of the preceding winters—only similar in their virulence and general diffusion; but we stand over one of our street gratings, and, seeing the bubbling, leaping waters as they rush through the sewer below, cannot fail to be reminded that fever, scarlatina—that zymotic diseases of any kind are happily absent from us now.

OF AGE AND SEX.

Presuming to no regularity of arrangement, the data I have at various times culled from the treatment of enteric fever are placed in the order first noted down. I admit the many objections that must naturally attach to this, but I cannot hope for my paper that consideration which would have justified me in a more methodical arrangement of its contents.

I append a table of 73 cases, made note of in the earlier stages of the epidemic. I am satisfied that it is equally applicable to the cases which followed, if we except the preponderance of children under ten years:—

	Under 10 years.	Under 20 years.	Under 30 years.	Under 40 years.	Under 50 years.	Over 50 years.
Males ...	17	7	8	5	1	1
Females ...	7	12	3	5	2	4
	24	19	11	10	3	5

Thus, then, the cases under 10 years were most numerous, and of those the males more than the females. Those under 20 years come next in number, but the order between the sexes is altered, the females predominating. In the next number, that of those under 30, the order is again reversed; whilst of those under 40, they are upon an equality. More females than males suffered in the two ages that follow, and this is more markedly the case in those over 50 years. It will be remembered that the children were first attacked, and with gastric fever; and the foregoing table, being taken early in the epidemic, is, no doubt, influenced by this consideration. I can supplement it from conclusions drawn from the entries in the Medical Relief Register, and from my case-book; and these tend to show the great determination of the diseased state to attack—those ranging from 15 to 30 and 35 years.

I proceed now to adduce such evidence as appears to me definite, in disproving the contagious character of pythogenic or enteric fever, and, in support of this evidence, take leave to remind the reader of the circumstances under which I studied the disease. Those who know the arrangements of the cabins of the poorer classes in Ireland, and especially of those in the western and southern provinces, will be free to admit that in them are contained all the elements which would be likely to favour contagion. Undivided by partitions of any kind, in many instances, and in others, by such as are of a partial or temporary character, their low, ill-ventilated cabins, afford not only the people themselves a habitation, but alas! in many instances, their cattle, and still oftener, their pigs. The primitive arrangements of their beds, the "huddled together" manner in which they lie, but above all, the shutting out of that atmosphere so indispensable to healthy existence. The light transmitted, at the best of times, through the diminutive windows, is but meagre, but in the vast majority of instances, of which I am speaking, no rays whatever penetrate. Old hats, rags of clothing, straw or other material, supply the place of glass, and oft-times, stones and clay are used, to more effectually obliterate the original site of the window. The floor of the cabin is almost invariably under the level of the road. Commensurate with it, at one time, continual "sweeping," and the geological peregrinations of the pig, lowered it naturally enough below the original level, whilst its surface, moreover, became indented with superficial channels. Two or three different descriptions are applicable to the mode of arranging the beds—(1.) The "dresser" is placed some three or four feet from the end wall of the cabin, at right angles with the sides. Behind this, two beds are stowed away foot to foot, or head to head, as the case may be, ingress being had to each of them in an aperture left between the respective margins of the "dresser," and the side-walls of the house. (2.) The bed is covered over-head, and at all sides by thick close straw matting, save where an opening, some two feet by three, is allowed for ingress and egress. (3.) In others—the worst or rather most wretched cases—the beds are laid on boards or straw, placed on the ground, where the cattle, horses, pigs, are not inmates of the house. They are "housed" in the immediate vicinity, and the accumulated manure is invariably proximate. I speak, be it remembered, of the poorest cases, as in those, for the foregoing reasons, endemic diseased would be most likely to become contagious.

OF ISOLATED CASES.

E. H., etat. 38; married; was attacked by enteric fever, and came under my care on the 22nd April. A clean, tidy

little woman ; her cottage was airy and well kept ; the yard clean, and she and I were equally at a loss to account for the cause. Every symptom was well-marked. Diarrhœa, gurgling in right iliac fossa—rose coloured lenticular spots. After a tedious convalescence, she recovered. Her husband, children, and nurse, remained in the cottage throughout, and were never affected in any degree.

J. M. M., etat. 28, a policeman, under my care at the same time, exhibited the best marked rose spots I have ever seen. My friend, Doctor Cody, of the Army Medical Staff, advised his removal at the time, but despite his advice I continued him in the same sleeping apartment with five other men, during the whole course of the fever, and not one of them contracted the disease. This man experienced, eight days before, "a heavy sickening smell," whilst smoking in an open privy attached to the barrack.

B. C., etat. 30, a labourer, occupied the common apartment with his father and mother, wife and young family, yet, in the long course of an attack, in which the worst symptoms were prominent, he did not succeed in imparting to any of them the disease from which he suffered so severely himself. (See case of I. N.)

P. S., etat. 25, inhabited, with his father, mother, brother, and sister, a small cabin in the village. The bed in which he lay occupied fully one-third of the apartment of which this cabin was constituted ; and what with impoverished food, restless nights, broken sleep, snatched here and there on the floor, and a fever patient beside them, one is sadly puzzled to account for the immunity this family enjoyed, in the immediate proximity of a diseased state, *said to be contagious.*

Miss B., etat. 21, residing some three miles from the village. experienced whilst in it a sickening offensive smell. Ten or eleven days after, I saw her—well-marked lenticular rose spots over abdomen and chest ; diarrhœa, with gamboge coloured stools. Her sister, with whom she resided, has a large family, and was naturally anxious for their safety, her husband's, and her own. On my expressing my belief in the non-contagious character of her sister's disease, Mrs. M. nursed her throughout, and, although a continually passing agent from the sick-room to the household, she failed to contaminate herself, or any with whom she came in contact.

From my case-book, or the records attached to the Medical Register of the Dispensary, it were easy to multiply cases in which contagion, if it were possible, ought to have occurred. Under circumstances the most favourable to its development, it was subjected to test, and in no single instance, as far as the minute personal inspection I afforded to it is concerned, did it succeed. The fermentive character of typhoid stools as a propagative agent I claim to be exempted from this—for these, I concede at once, are eminently productive of the disease. I lay under contribution the following cases in proof :—

M. O'B., etat. 50, attended her two daughters in enteric fever for nearly three weeks. Proceeding to empty the bed-pan—*which had remained since morning*—in the evening, she was delayed doing so by parties passing the road. Whilst waiting, she inhaled an "awful" smell from the vessel ; sickened a few days after, in well-marked pythogenic fever, and died—attributing the cause to the bad smell on the 16th day.

P. O'N. (18), contracted typhoid fever, and was attended by his mother during the disease—his father and brother continuing in the next apartment. The mother was struck down when the boy was just able to leave his bed, but, she admitted to me, she had left the "pot" containing her son's diarrhœa stools for "two days and a night" in the room, and she felt "going down every day since."

J. N., etat. 20, a shoemaker, residing "three doors" below B. C., lay down in typhoid fever, a fortnight after the latter. No cause could be assigned for the advent of the disease in him. On examination of the "yard," I found the "top flag" of the sewer had been raised, just outside the door, and I knew that the stools passed by B. C. were thrown into this sewer higher up. The "flag" was replaced, and neither his father or mother, who occupied the apartment with him, contracted the fever.

THREE CASES OF "BLACK DEATH" OR "PURPURIC FEVER."

By T. B. RYAN, L.K.Q.C.P.I.

I BEG to forward particulars of three cases of the so-called "black death," or "black fever," that occurred in this neighbourhood, at a place called Ballyhoolahan, near Emly, in the family of a comfortable farmer. The farm house in which they occurred is surrounded by fields, a considerable distance from any other residence, and I could observe nothing about it to account for the disease.

The first case was that of Bridget Condon, æt. 11 months, who was taken ill about five or six o'clock A.M., on the morning of the 9th June, with purging and vomiting ; dark spots were observed all over the body, which led its parents to consider it a case of measles. The vomiting and purging continued until its death, which took place on the morning of the 11th, forty-eight hours after the first seizure. During illness the child passed water freely.

Immediately after death the greater part of the body assumed a dark colour, the face and hands remaining free from discolouration.

Case 2.—Mary Condon, æt. 2½ years, sister to Bridget Condon, was seized with illness on the evening of the 11th, at the hour of 6 o'clock P.M. She was affected with purging and vomiting, like her sister, which continued until her death on Thursday evening at seven o'clock P.M., 24 hours after its seizure.

These two cases were not seen during life by a medical man. The suddenness of them, and the unusual appearances immediately after death, thoroughly alarmed the parents ; and when the third case occurred, I was sent for as soon as they conveniently could. I arrived just in time to see the dead body of the second case, Mary Condon, before being shut up in its coffin. It was then I gathered from the parents the above details. About ten hours had elapsed since its death until I saw it ; the discolouration was intense, of a deep slate colour, and it prevailed very extensively over the body ; indeed, covered the greater part of it. The extremities of the fingers were of a bluish black colour.

Case 3.—James Condon, æt. 3½ years, took ill on Thursday night, 12th June, at the hour of twelve o'clock. Early next morning I was sent for. When I reached the house I found him lying in his mother's lap, in a state of stupor, from which he could be easily roused. On examining him, I found the conjunctiva much injected, but the pupils contracted readily with candle light. I could observe no spots on his skin, which was hot and dry. His face was flushed ; pulse 160 in the minute. His voice was natural, and he passes water freely. There were no convulsions nor any irregular action of muscles, such as spasms, &c. His mother stated that he was constantly falling into a state of stupor, from which he would be roused frequently by vomiting and purging. He raved a good deal.

As to the treatment, I felt rather at a loss what to do. It was plainly a case that could not afford to wait the time necessary to procure medicine from town, a distance of nine miles. I had, however, with me, fortunately, some aromatic spirit of ammonia and tincture of opium. I gave him immediately twelve drops of the former, and five drops of the latter, in sugar and water, and left a mixture of aromatic spirit of ammonia and water, to be adminstered to him at intervals, until medicine could be procured. I also ordered a teaspoonful of whisky, made into punch, with hot water and sugar, to be given every hour. I next soaked, in hot water, some broad calico bandages, and with these I enveloped his body, commencing at his feet, and reaching as high as his groin. I enveloped the abdomen and chest also in another wet bandage ; over these again, I applied others wet in the same way, and, over all, a few

turns of a dry bandage, in this way, making a sort of wet packing, taking care to leave the parts about the pelvis free, so as to leave a free escape for the evacuations. I had him then covered up in bed, and ordered for him the following mixture :—

℞ Acetatis plumbi grana octo.
Aceti destillat, ℥ss.
Tinct. Opii, ℥ss.
Syrup. croci, ℥ss.
Mist. camphoræ ad ℥ii. M.

St. cochleare unum minim quartis horis.

I ordered also a small blister to the nape of the neck, for four hours. Having directed this treatment, I left, fearing the next message would be one announcing his death.

14th June.—The next day I was glad to learn that he was somewhat better. I now substituted for his acetate of lead mixture, a mixture containing dilute sulphuric acid, camphorated tincture of opium, and chloric æther.

15th.—He was reported improving in every respect, and I had no further account of him until the 18th, when he was considered convalescent, the purging and vomiting having ceased, and the stupor and other head symptoms having also disappeared. The only thing that remained was some griping pain, for which I ordered a draught of castor oil and tincture of opium.

The wet packing, which had been kept up until now, I ordered to be discontinued.

There was no evidence of cerebro-spinal arachnitis in those cases—no convulsions—no stiffness of the muscles of the neck, &c., but there was evidence of passive congestion of the brain, as was shown by the injected conjunctiva—the stupor and incoherence. They presented not many points of resemblance to cholera—only the purging and vomiting. There was wanting the peculiar whispering voice of cholera.

The urine was secreted; the countenance had not the sunken aspect of cholera, and the skin, instead of being cold and clammy, was hot and dry. From my observation of those cases, I would say the disease is one *sin generis*. I think, too, that the cerebro-spinal meningitis, so frequently observed, is not an essential condition. At all events it was absent in those cases.

The spots on the skin, also, were present during life only in the first case; but, in the two fatal cases, the slate coloured patches were so numerous and so large immediately after death, that they formed a nearly continuous surface of disolouration.

How far the treatment I adopted in the third case contributed to the recovery I am not prepared to say. Certainly I would be inclined to adopt a similar treatment if I met with another such case, or a case of cholera.

The name of "Black Death," so much criticised, is not at all inappropriate, as indicating a too frequently fatal result, but a name that would indicate some pathological condition, would be more philosophical. Until, however, the exact pathology of the disease be better defined, it is just as good as any other.

PLACENTA PREVIA.

By Dr. JOSEPH DUGGAN.

EX-SENIOR SCHOLAR IN THERAPEUTICS AND PATHOLOGY, Q. C. G., LATE ASSISTANT SURGEON R. N., MEDICAL OFFICER TUOLOUGHMORE DISPENSARY CO. GALWAY.

THE subjoined case of placenta previa occurred in my dispensary district about a month ago. On the 11th of May last I was called in a hurry to see Mrs. G., of Waterdale, aged 40, in labour of her first child, at full time. The messenger stated she was very ill in labour for more than two days, and extremely weak from loss of blood. The latter being, in such cases, the harbinger of evil, I drove off at once to see her; she was lying on a bed near the fire, cold, exhausted, and almost pulseless, with troublesome jactitation of the limbs, and very much blanched from hæmorrhage, the part of the bed on which she lay was literally soaked with blood, her voice low and whispering, and the uterine pains weak and feeble. I immediately gave her a draught of aromatic spirits of ammonia, and tinct. lavand. co., with wine and other stimulants. After the lapse of a little time the pulse improved, and she slightly rallied; the jactitation, however, still continued, for which I gave her a draught of cloric ether and tinct. opii, which had a very good effect in checking it. Being somewhat restored by the stimulants, I proceeded to examine her. Owing to the external parts of the passage being very rigid and resisting, I had much difficulty, indeed, in passing my hand up the vagina, where, to my surprise, I felt a large fleshy mass hanging from the os uteri, the disc of the os was fully dilated, the head presenting, and the bag of the membranes protruded into the vagina. I knew instantly it was the placenta, the volume of the separated portion was nearly one-half—the remaining part still adhered to the neck of the uterus. From this I concluded that before labour set in, the placenta was attached round the superior zone of the cervix, right above the os, a perfect case of placenta previa centralis. The constant oozing of blood, and the great prostration, demanded imperatively immediate delivery. Without further delay I ruptured the membranes, the head placed in first position (Nægle), and rather low. I applied the forceps, and extracted a large well-nourished living (female) child, I then removed the placenta. The uterus, however, remained relaxed, and slight hæmorrhage ensued. I applied pressure with my hand, and cold over the uterus, without effect. At this perilous moment every drop of her blood was very precious to her, an enema of tinct. of ergot., and cold water was administered. I then introduced my hand into the womb and removed a large coagulum, uterine contraction followed, and the hæmorrhage ceased. By the diligent and judicious administration of restoratives, she miraculously made a very good recovery. I have visited her thrice since, and, considering the great loss of blood, she appears to be doing very well.

I regret not having taken notes of other cases of placenta previa that came under my treatment, where I had used the forceps with success; of course it cannot be employed in every case, but where at all practicable, I consider it the safest and most expeditious mode of delivery. Turning, though generally adopted indiscriminately, is liable to cause laceration of the vascular os uteri.

CASE OF STRANGULATED FEMORAL HERNIA IN A MALE;

COLLAPSE—OPERATION—RECOVERY.

By JOHN STUART VESEY, M.D., F.R.C.S.I., Etc.,

MAGHERAFELT UNION INFIRMARY.

HAVING read the account of two interesting cases of "Strangulated Inguinal Hernia," in THE MEDICAL PRESS AND CIRCULAR of 8th May, I think it right to give the following brief notes of a case of strangulated femoral hernia, I had some years ago. It may prove useful to some of the more junior members of the profession, showing that a case of strangulated hernia, to all appearance hopeless, may be relieved at the eleventh hour by operation. I look on it as an exceedingly rare recovery, never having seen in the Dublin Hospitals, or in my own practice, a case with such death-like symptoms to recover.

The following are the notes I inserted in the Record Book of Sickness and Mortality of the Magherafelt Union :—

I was called upon some years ago to see a poor itinerant, supposed to be dying in the last stage of typhus fever. On a minute examination, I found he was labouring under strangulated femoral hernia. As far as I could learn, he had been ill for *four* days, but I could not depend on this statement.

I tried the taxis but to no purpose. I had him removed at once to the Union Infirmary.

The man presented the following symptoms on admission,

he was in perfect collapse ; pulse could not be counted, so small and weak was it ; extremities cold ; eyes turned-up, dark areola under them ; face shrunk ; constant vomiting and hiccough ; complete constipation of the bowels ; abdomen enormously distended. He was perfectly insensible, and could not swallow.

I had a consultation on his case with two respected brother medical men, since dead. We agreed that the patient was to all appearance dying, and that he could not survive more than a few hours ; that the operation would not hurry his death, and that we were justified in giving him the chance, having very feeble hopes of success. I performed the operation by making a crucial incision over the hernia. Layer by layer the different faciæ were divided, till the intestine was exposed. It could not then be returned, so tightly was it strangulated. The stricture being very deep, there was great difficulty in dividing it. The intestine was on the border of mortification, and firm adhesions had formed between it and the sac. On the division of the stricture, the intestine was easily returned. The wound was brought together in the usual manner.

During the entire operation he acted like a madman, and required five persons to hold him.

He could not swallow anything for two days after the operation. The bowels were moved *twice* soon after the operation, and daily two and three times up to the fourth day, when a violent purging came on of black tar-like substance in profuse quantity, ten or twelve times on that day, with great prostration, and to all appearance the patient was dying.

On the fifth day he became slightly sensible, and the purging ceased. He could now swallow, so whiskey and wine were given in large quantity.

Daily he became clearer in his intellect, and stated that he remembered nothing about the operation, or his coming to hospital.

From the sixth day to the twentieth his bowels were often violently affected, but the evacuations were of a healthy colour.

At different times he was ordered pil opii, hydrarg. c. cretæ c. pulv. Doveri, enema amyli c. t. opii, wine, whiskey, arrow-root, beef-tea, &c.

The wound was poulticed and wet with infus. cinchonæ.

Four weeks after the operation the wound was almost healed. He sleeps well, and his appetite good ; no pain or uneasiness ; intellect perfectly clear.

After some short time he was discharged cured.

In about a year after he was admitted again into the infirmary, and died of dropsy, which arose from a diseased liver. He was 36 years of age, and of very intemperate habits.

Hospital Reports.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

A LARGE ANEURISM OF THE RIGHT SUBCLAVIAN ARTERY, TREATED BY ACUPRESSURE ON THE FIRST STAGE OF THE AXILLARY ARTERY.

Under the care of Mr. PORTER,

SENIOR SURGEON TO THE HOSPITAL.

PATRICK G., aged 43 years, a labourer, was admitted into the Meath Hospital suffering from an aneurism of his right subclavian artery. The disease invaded the three stages of the vessel, and presented a tumour about the size of a large duck-egg above the clavicle, filling up the entire space between his collar-bone and the trapezius muscle. It pulsated strongly, had an elastic feel, and showed signs of thinning at one point. A loud *bruit de soufflet* was audible in it, extending also to the arch of his aorta. The external jugular vein was much distended above the swelling. He did not suffer from loss of voice or difficulty of breathing.

A second aneurism was discovered in his right femoral artery close to, and passing above, Poupart's ligament, towards the external iliac. He had no pain, but complained of numbness in his arm and hand. He appeared to be in excellent health, not in the least degree wasted, and his spirits were good.

He stated that the aneurism had made its appearance fourteen months previously, and had increased gradually in dimensions, until he entered another hospital in March last, where pressure on the tumour was had recourse to. This, he considered, caused the swelling to increase rapidly. As the subclavian aneurism was evidently thinning, and threatening soon to become diffused, or burst externally, Mr. Porter considered his a fair case to give him the chance (although unpromising) of a cure by occluding the artery on the distal side of the tumour. The disease prevented him securing the innominata, or the subclavian, in any of its stages. He therefore decided upon attempting to obliterate the aneurism by placing an acupressure needle under the axillary artery in its first stage for fifty hours. The general tendency to aneurism in his system induced Mr. Porter to prefer giving this mode of closing the vessel a trial, instead of throwing a ligature round it, which might, in the first instance, suddenly cut through the artery if diseased, or, when coming away, be followed by fatal hæmorrhage.

June 26th, 1867.—Mr. Porter laid bare the axillary artery in its first stage, after an external incision, four inches in length, extending in a curved direction inwards, from the junction of the deltoid with the greater pectoral muscle, and at a level of half an inch below the clavicle. He then isolated the artery with an aneurism needle, and passed a silver probe slightly bent beneath it, and bridged over the vessel with a loop of wire, after the manner of Sir James Simpson's *third* mode of acupressure. The tumour immediately became reduced one-third in size, and all pulsation in his brachial, and radial arteries ceased. The patient was then removed to bed, and a small bag of ice applied to the tumour.

28th.—The tumour is reduced very much in size ; the pulsation weaker, and the bruit in the aneurisn two-thirds shorter. The aortic bruit has almost disappeared.

Half-past three o'clock, P.M.—Mr. Porter removed the probe and wire, not a drop of blood followed.

29th.—The tumour is still smaller, and more firm.

Up to the time of receiving this report, the patient has gone on most favourably.

"AN ACCOUNT OF AN EPIDEMICAL PUTRID FEVER,

WHICH BROKE OUT AT KINSALE AND THE ADJACENT NEIGHBOURHOOD IN 1757, WITH PRACTICAL OBSERVATIONS THEREON." EDITED FROM THE MS. MEDICAL AND PHILOSOPHICAL MEMOIRS DEPOSITED IN THE LIBRARY OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

By T. W. BELCHER, M.D., Etc., Dublin,

FELLOW, CENSOR, AND HON.-LIBRARIAN OF THE COLLEGE, ETC. PHYSICIAN TO THE DISPENSARY FOR DISEASES OF THE SKIN.

WITH reference to the recent epidemic in Dublin, which, according to some of our best authorities, may be well called "purpuric fever," I think the following paper now published for the first time (so far as I am aware), may be read with advantage. It is printed (*verbatim, literatim, et punctatim,*) from the first volume of the Medical and Philosophical Memoirs. These memoirs consist of three MS. folio volumes, which are deposited in the Library of the College of Physicians, Dublin. They contain much curious and interesting matter, and give a fair idea of the state of our profession in Dublin one hundred years ago. Among the contributors are many well-known names, such as Smith, Rutty, Cleghorn, Fordyce, Barry, M'Bride, Croker King, Hill, Saunders, Purcell, Jebb, Moody, and Perceval. These memoirs end in the year 1784, but it is

said that the successors of that society still exist as a Dinner Club, to which the name "Philœsophageal" has been applied in joke. Respecting Dr. Nathaniel Barry, who read the following paper before the Medical and Philosophical Society on the 15th December, 1757, I may perhaps be permitted to reprint the following note from pp. 63-64 of my Memoir of Sir Patrick Dun, M.D. (Dublin, 1866) :—

"Afterwards Sir N. Barry. He was the only son, by his first wife, of Dr., afterwards Sir Edward Barry, Bart. Sir Edward graduated M.B. at Dublin on the 12th of February, 1739-40; and M.D. on the 8th of July in the same year. He was elected a Fellow of the College of Physicians on the 22nd of July, 1740, and was chosen President in 1749. In 1754 he was appointed Regius Professor of Physic in the University. He was also F.R.S., and Physician-General to the Army in Ireland. Removing to London, he was incorporated (probably) at Oxford on the 30th of June, 1761, on which day, according to the Catalogue of Oxford Graduates, he received a license to practise. In 1762 he became a Fellow of the London College of Physicians, was created a Baronet on the 6th of July, 1775, and died at Bath 29th March, 1776.—(See Munk's Roll of R. Coll. Phys., Lond.) His second wife was Jane, *d.* of Anthony Dopping, Bishop of Ossory, and by her he had three sons and two daughters. The baronetcy devolved on Nathaniel, above-mentioned. He was (probably) admitted *ad eundem*, at Dublin; was chosen Fellow of the College of Physicians on St. Luke's day, 1758, and President in 1767 and 1775. He married Catherine, *d.* of Walter Jones, of Headfort, Co. Leitrim, Esq.; and by her had an only child, Edward, who succeeded his father (who died in 1785), and died s. p. in France. Sir Edward (third baronet) was succeeded by his cousin Edward, *s.* of Rev. John Barry, Dean of Elphin. He also died s. p., and with him the title expired. The pedigree of this family is in Ulster's office, but the baronetcy does not appear to have been noticed by writers on these subjects. Sir Nathaniel is the only instance in which two baronets, father and son, were Presidents of the College of Physicians. A good portrait of him, by Gainsborough, presented by Sir Henry Marsh (second baronet), is in the College of Physicians."

Since I wrote the above note in 1866, I have reason to doubt that the portrait just named is that of Sir Nathaniel. I rather think that it must be one of his father, Sir Edward, if we may judge from the costume, which is that of a date anterior to Sir Nathaniel's time; while an undoubted likeness of Sir Nathaniel, now in possession of Dr. Banks of this city, is as unlike that in the College of Physicians as any two pictures can possibly be.

The following is the extract from the MS. referred to; and in reading it we must bear in mind that a century ago Irish *Hospital* practice was mostly confined to military surgeons, few other hospitals for the sick then existing in Ireland, except those supported by Government for the Army. At that period it was also usual, as it still is in some of our colonies, for military surgeons to engage in civil practice.

"Dr. Nat. Barry read the following Account of an Epidemical Putrid Fever, which broke out at Kinsale and the adjacent neighbourhood, with some new practical observations thereon, being an extract of a letter from Dr. Majoribanks Surgeon to the regiment of foot :—

AN ACCOUNT OF AN EPIDEMICAL FEVER AT KINGSALE.

In the month of May a fever was very frequent in this country, it first appeared in Kingsale among the town's people and soldiers, and we apprehended it took its rise from the jail, where the French prisoners were much crowded. Five grenadiers in our regiment were seized in one day, their first complaints were a violent head-ach, pain in the back, irregular shudderings, foul tongue and bad taste in the mouth, and a full quick pulse with great heat on the skin; the 2nd or 3rd day petechiæ, rather dusky than florid, appeared all over on some; on the breast, back, and arms on others: Their pulse fell, their countenance turned dusky, and the heat of their skin continued and it felt very dry, they did not complain much of thirst, though their tongue was dry, nor scarce indeed complained of any thing but want of sleep, though in appearance they dosed; from this time till about the 9th they turned more stupid, the pulse more sunk, and tho' at first costive, had now frequent thin fœtid stools, and no moisture on the skin. About the 9th or 10th day, they turned quite insensible, the pulse scarce to be felt at times, passed everything in bed, very hot smelling breath, and their mouths and tongues quite stuffed with a viscid, blackish slime which being adhesive and drawing from tooth to tooth, veiled as it were the mouth. A subsultus tendinum was generally perceived from the 8th day, involuntary fears and hiccup preceded death. Those that did recover, instead of turning quite insensible grew exceeding deaf about the 10th day, continued excessively weak for months, and indeed appeared scarcely animated.

On their being first seized, I prescribed bleeding, as they were all young, strong, and plethorick, and as the diseases of soldiers are generally of the inflammatory kind; but I repented afterwards of that evacuation, in any quantity performed, when the blood drawn, the sinking pulse, great weakness, and total inability to muscular motion, shewed the disease not to be sanguinary.

After V. S. I Puked with ipecacuanh. gave glysters and attempted to keep up the pulse with cordials, wine-whey for drink, plain red wine and blistering plasters, however, we lost two very fine soldiers.

In August, the same fever was preetty frequent in Kingsale, Cork, and Bandon, though milder at that time, and in those that I saw, without eruption. I was then called to a woman (Mrs. Dennis) in Kingsale in the 10th day of the fever, who had taken no advice, vinagar whey was her food, drink, and medicine. She was almost quite insensible; her eyes full, heavy, and inflamed; her pulse was very low, and not quick; her mouth, tongue and throat furred over in an extraordinary degree, and costive. I immediately ordered a glyster, proper cordials, wine whey, her head to be shaved and fomented; and a blister narrow, but lengthened along the spine; however, she grew worse and worse, comatose, and died on the 16th day.

In about ten days her husband, Mr Dennis was taken ill, and sent for me the 7th day of the fever, he had taken no advice, nor done anything, but as his wife had lived upon vinegar whey. He was not insensible, but stupid, complained much of his head, was rather costive, his pulse was very low; and his mouth and tongue daubed over with a yellowish viscid slime. Though he had no propensity to vomit, yet I thought it was in vain to give any medicine without cleansing the first passages, and ventured to order an ounce of the antimonial wine that night; I say ventured, because late in the disease, and his head so much affected. I was from prejudice, not reason, somewhat afraid. It puked once only, purged twice, and ended in a gentle and short continued sweat; so great was my fear for his head, that I had directed a blister and cataplasms to be in readiness, and applied if the force of puking made his head worse; but next morning I was agreeably surprised to find him better in all his complaints, and his pulse greatly mended. I directed the emetick to be repeated that evening, but being obliged to leave the town, the apothecary was afraid to give it, except I had been on the spot, from the scruples I had mentioned to him the night before. On the 9th day I saw him again, and found his head to be more affected, very stupid, and delirious, his pulse more sunk than ever, and a slight *subsultus tendinum*, and I imediately ordered a blister and proper cordials, his legs were blistered the day after. He had many fœtid stools and gradually recovered.

The next case that occurred was a soldier (Singleterry) of our regiment who was seized with the same fever, his pulse would not bear the lancet; and encouraged with the success of the emetic wine in the preceding case, on the third day of this man's disease I gave him an ounce and an half of it, which pumped up abundance of roapy bilious stuff, purged twice, and ended in a sweat, though of a short

duration ; but he mended gradually from the puke, his pulse which was very low before, now felt more full and firm, and though the fever remained for some days, yet in a very mild degree, nor did he take anything but the saline mixture with a little cordial confection.

Another soldier (Blews) took it on the 9th day of the fever with the same success ; a constant and violent headach troubled him all the time, but went quite off after the puke.

A sergeant (Wright) was seized with the fever, a very low quick pulse and great heat of the skin. On the 2d day of the disease I gave him an ounce and a-half of the wine, and he was perfectly well on the third day, only an old sore leg inflamed and swelled, which was carried off with Glauber's salts in an infusion of chamomile flowers.

Another soldier (Longsdale) who had been blooded, puked with ipecacuan. and his body opened with glysters, but on the 7th day his pulse turned very low, and he was ordered theriaca and wine whey, and on the 9th was blistered. When I saw him at Bandon on the 10th his pulse was quick and low, his mouth foul, was very sensible, but had great pain and uneasyness in his head, and had never slept from the attack. I ordered him an ounce of the emetic wine, after which he continually recovered without the assistance of any other medicine. (See his case page 243). [The letter at the close of this paper.—Ed.]

A deserter (Jackson) the other day in the Garrison Hospital, who had the fever, with seemingly dangerous symptoms, took the emetick wine with the same success.

One of the draughts (Woodhouse) was seized with the fever and a quick, hard pulse. He was blooded on coming in to the Garrison Hospital. On the third day of his disease, a violent pain in his head, stitch in his side, and the former blood which was rather sizy, determined me to bleed him again. On the fourth day his mouth and tongue were much furred over with a tough yellow mucus, and his pulse was very low. I gave him directly an ounce and a half emetic wine, and it operated very well, next day I found him better, and his pulse was greatly risen, but on the 6th day he was delirious at times, his pulse low, and his mouth again very foul, I was just going to repeat the vin-emet. but to try the difference of operation I gave him half a paper of James's powder, which operated entirely as the wine, only caused more sweat, the 7th day he was a little better, ordered him the saline mixture made with Sal. C. C. though rather acrescent, and some cordial contion added, and applied blisters, the 8th day persisted in the above medicines. The 9th day from the appearance of his mouth ordered half a paper more of James's powders, and after puking and purging he sweated very much. 10th day he was much easyer, more sensible and gradually has recovered, only a slight cough remains. He used the mixture, wine whey, and 5 or 6 times a day one spoonful of panada to make his drink readily mix with the animal juices.

Though I did not in these fevers lose a patient to whom the emetic wine was given, yet I do not infer that it is the only requisite ; I never trusted entirely to it's effects, except where the change for the better was sudden ; but I think from the above cases the following queries may be made with some reason.

1. In the state of the disease described can dilution be carried on ?

2. Are not the absorbent vessels plastered over with a colluvies tenax morbosa ?

3. And if the drink or medicines get into the blood, yet, by being strained through this putrid slime, does it not carry much fomes in with it ?

4. Doth not a very foul tongue and mouth indicate an emetick, and ought not a second and third appearance of that symptom, indicate the same to be repeated ?

5. Can we expect a person insensible to complain of a bad taste in his mouth, or can we expect that a lax inert stomach loaded with bilious tough slime to unlade itself unless by some extraordinary effect of nature or art ?

6. Is not an emetick of energy required, and is not that the best which will puke, purge and sweat ?

7. Is not from the above, the vinum emeticum a tollerable succedaneum for James's powders or probably equal thereto ?

8. Why is it the almost constant rule in giving but one puke in fevers, and that at the beginning only ?

9. Are not we (or rather was not I) too timerous in giving emeticks, when the head is affected, in those fevers that are not inflammatory ?

10. Are not the finest fluids obstructed, coagulated and rendered putrid in this disease, and besides evacuating the contents of the stomach and guts, is not the action of puking necessary to attenuate and resolve the obstructed lymph in the extreme capillaries, shall I say nerves ?

11. May there not be a great resolving quality attributed to the emetic wine besides the mere force it exerts in puking ; and is it not probable the more subtile parts of it get into the blood and pervade beyond it ?

I ought in support of the 5th query to mention Dr. Huxham's words, that he has many times with the greatest pleasure, in these fevers seen an amazing change for the better succeed a fit of vomiting and a stool or two, and he generally gave a laxative the 8th or 9th day except some eruption, or kindly sweat forbad its use. In those fevers among us I did not perceive any of the patients to have a tendency to puke, even from the first, and I do believe so dull and obtuse the nervous system is, especially towards the state, that were we to wait for that indication to give vomits, we might wait for ever. I cannot help remarking the foolish prejudice people have about shaving a man's face, washing the hands, and changing the bed-clothes and linen, and yet they have no objection to shaving the head, and putting on worn greasy linen that cannot be warmed. I always insisted on the person's being washed with Hungary water or brandy diluted with water ; and observed the patient much relieved by having his head and neck legs and arms, bathed and fomented with a decoction of chamomile flowers and rosemary and recommended frequent change of linen, except where sweating made it imprudent ; and I am certain these must have a good effect, especially fomenting the hands and feet, and sure I am it is comfortable to the attendants.

The following letter is from a person who has the care of two companies at Bandon.

Dec. 5th, 1757.

Sir,—I gave Longsdale the emetick about 12 o'clock. It began to operate about ¾ of an hour after. It vomited him very well and with ease : much green and yellow filth came off his stomach, during the operation he had a stool and a second after it was over. His pulse soon rose, and he sweated very much that night, next morning he was much better and continued to mend ever since.

The above person's case is mentioned before, I had not time to wait the operation of the emetic, so desired the person that attended him to send me an account of its effects.

There was nothing remarkable in the urine of the patient in the beginning, and about the 10th day none could be saved : and on the recovery, I did not observe that perfect sediment that might be expected.

Cork Dec. 6th, 1757."

Review.

CLINICAL MEMOIRS ON THE DISEASES OF WOMEN. By M. Gustave Bernutz, Physician to *La Pitié*, and M. Ernest Goupil, late Physician to the *Bureau Central*. Vol. II. Translated and Edited, [for the New Sydenham Society,] by Alfred Meadows, M.D., London, &c., 8vo, 1867.

In our number for the 2nd January in the present year we published a review of the first volume of this work ; and in doing so we noted the fact that the translation is not only an abridged, but a condensed version of the original, whose matter it represents, rather than its *ipsissima verba*. We also stated for the benefit of the reader, that the original work of MM. Bernutz and Goupil is not a dogmatic treatise on the Diseases

of Women, but merely, as its title indicates, a collection of Clinical Memoirs.

The present volume contains 270 pages, well put out of hands, as is usual with all the publications of the New Sydenham Society. The Editor's Preface is short, and explains the plan and contents of the volume so concisely that we shall allow Dr. Meadows to speak for himself. He proceeds thus:—

"This, the second volume of the work of MM. Bernutz and Goupil, is devoted to the consideration of two subjects, viz.:—*Pelvi-Peritonitis* and *Uterine Deviations*. The former of these has hitherto met with so little attention among English medical writers, that in many of our standard works no mention whatever is made of it. In many instances the disease is confounded with *pelvic cellulitis* or *peri-uterine phlegmon*, with which, indeed, it has little or nothing to do. Whether or no closer observation and study will show that the disease is more common than has been heretofore acknowledged, is a point which time alone can determine. Certain it is that the views here propounded have not as yet found much favour with physicians in this country. On the other hand, no one who reads the minutely detailed record of cases in the original of this volume, can doubt that the author (M. Bernutz) is a most careful and conscientious observer, and the results of the *post-mortem* examinations appear to be very conclusive as to the points at issue.

"In regard to the Second Part, which treats of Uterine Deviations, there is much there, also, which is opposed to the experiences of English Physicians. That flexions and versions of the uterus should of themselves give rise to no symptoms, and that the signs which we have regarded as indicative of uterine displacement should be ascribed entirely to complications which are independent of such displacement, these are doctrines which, startling though they be, are happily of such a practical character, and so far removed from the region of hypothesis and theory that their truth or error admits of very easy demonstration. All that is required, is full and fair investigation, and it is hoped that the publication of this work by the Council of the New Sydenham Society, will further the settlement of these disputed questions.

"I have added to the present volume a full Index and List of References to Authors, which, I trust, will be found useful."

As a specimen of the translation we beg to direct attention to the following extract, which constitutes the opening portion of chapter II. of the first part of the volume—that on Pelvi-Peritonitis. Respecting statistics of the origin of Pelvi-Peritonitis the writer says:—

"We have seen that cases of pelvi-peritonitis occur after delivery, either at full term, or prematurely; after menstrual disturbances; in the course of blenorrhagia; after venereal excess; and after certain traumatic measures, especially after the use of the sound. No doubt there are other circumstances also as precursors, as I shall show presently, but the former have been the more frequent during the six or seven years that I have investigated this subject. Most of the cases have occurred in the *Hopital Louis'ne*, and the majority were from 15 to 25 years of age; very few being as old as 30. It is necessary to insist upon these points, as it might appear strange that the affections in question are so seldom associated with organic lesions, and so frequently with blenorrhagia. I have taken no note of the cases observed by me when in charge of *La Pitié*, because some of the women's beds there are devoted to obstetrics; but an analysis of 99 non-obstetric cases observed in that hospital, in which the morbid conditions under which pelvi-peritonitis occurred was recorded, gave the following results:—

43 were puerperal	35 after delivery at term. 8 after abortion.
28 were blenorrhagic.	
20 were menstrual.	
8 were traumatic	3 after venereal excess. 2 after syphilitic disease of the cervix. 2 after the employment of the sound. 1 after the use of a vaginal douche, employed in a case of membranous ulceration of the cervix.

"This table shows very clearly how great is the majority of cases of puerperal pelvi-peritonitis, which alone numbers almost as many as all the rest put together, especially if we omit the last exceptional cases. I ought to mention that, in order not to multiply the divisions, I have included under the term *puerperal pelvi-peritonitis* not only those which occur after delivery at term, but those also following abortion; of which, however, I shall treat in a separate section."

The General Index and the List of References to authorities form a very fitting conclusion to these volumes, which Dr. Meadows has translated and edited with his usual fidelity and ability.

CURRENT LITERATURE.

AMONGST the publications, a notice of which has been delayed in consequence of the unusual pressure on our space, we may mention some that refer to the British Pharmacopœia. Of these, first of all is the new edition of the *Prescriber's Companion*, by Dr. Meadows, one of the neatest and most useful of the smaller works that have recently been published. We have gone carefully through this publication by Dr. Meadows, and have much pleasure in testifying to its completeness, elegance, and general utility. This edition has been corrected according to the New Pharmacopœia, and is what it professes to be—a most valuable prescriber's companion. Besides the preparations of the authorized national work, it contains a large number of others in daily use. These last are distinguished from the officinal ones by being printed in red ink. The book does credit alike to author and publisher (Renshaw).

An *Appendix* to the *Prescriber's Analysis* of the Pharmacopœia has also been issued, with a view of making that useful little work of service since the new edition of the British Pharmacopœia. We have examined this *Appendix* carefully, and find it very complete. Every possessor of Dr. Nevins's *Analysis* should at once purchase the *Appendix*, and bind it up with his volume. It is a necessary addition to that admirable little book.

Mr. Francis Vacher, under the title of *S du tion in Edinburgh*, has arranged a series of tables from the records of 364 first confinements in the Edinburgh Royal Maternity Charity. These tend to throw considerable doubt upon the popular notions respecting this subject, and the author seems to think that students and military men are commonly most unjustly maligned. Moreover, the statistics seem to show that it is not the rule for young women to be led astray by their superiors in social position, and on this point we think Mr. Vacher's investigations are more reliable than in the others. As the subject is exciting interest, we give the author's conclusions in his own words as follows:—

"I. That a very trifling per cent of the seduced have been led astray by men moving in a higher sphere than themselves; that as a rule, the seducers in each grade of the community are to be found within that grade; and that it is quite as much the exception for a gentleman to seduce the daughter of a working man, as it is for a private soldier to seduce the daughter of a minister, or for the child of a physician to be led astray by a policeman.

"II. That young women, whether servants or otherwise, are rarely, if ever, seduced by students attending the University.

"III. That soldiers are certainly not more guilty of the crime of seduction than other classes of the community."

It is very gratifying to learn that only one pupil of the University, and that a veterinary student, should have come upon this list, and that only one military officer should appear in the same category. There is, however, one circumstance which might invalidate the deductions drawn. That is, that no account seems to be taken of the fact that those who resort to hospitals belong to the poorer classes. We can scarcely believe that the unit represents the fair proportion of either of these classes who have thus committed themselves, and are disposed to think that some of them have provided for the unfortunate young women, without permitting them to resort to the Maternity charity. In that case the tables would rather represent those seductions in which the seducers had forsaken their victims. We offer the suggestion as one that may explain some of the tables, and recommend the pamphlet (published by Peddie & Muir) to all interested in such questions.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 3, 1867.

THE ELECTION AT THE LONDON COLLEGE OF SURGEONS.

THIS week will be decided the great contest which has so long occupied Professional attention. Three members of the Court of Examiners come before the Fellows as candidates for re-election into the Council, and they are to be opposed by men of the highest character, position, influence, and popularity, supported by that great body that is desirous of forcing reform upon this exclusive Corporation. There is no real personal objection to the retiring Councillors. SKEY, KIERNAN, and WORMALD have impressed their names upon the history of Surgery. Each has, perhaps, done his share of honest work. But these names belong to the past more than to the present. They are of that party to which the word Reform is a bugbear. The College has done well enough for them, they argue; and we may supplement their statement by saying they have done well enough for the College. But while they have been stationary, the Professional world has been moving; the Reformers in the College ranks have become a power. Inspired by a great principle, urged on by a still more earnest phalanx behind, they are determined to put their powers to the test, and are eager for the fray. They have every right to succeed.

If the Profession is to be rescued from the incubus of the Corporations which weigh upon it, it would seem that this is only to be accomplished by converting them into organizations worthy of support. If the College of Surgeons is to retain the distinguished position it has so long held, it must begin to deserve it, and this it will never do while selfishness reigns supreme in its government. Messrs. SKEY, WORMALD, and KIERNAN, have enjoyed the sweets of office for the last seventeen years or more, and what have they done, during all that long period, to entitle them to a further tenure of power? We are not aware of any reform they have ever proposed, or any that they have supported when others have brought them forward. We believe that, on the contrary, they have been staunch advocates of things as they are and have been. For ourselves, we are utterly sick of this condition of things, and could welcome any change—assured it could not be for the worse.

But what do their opponents promise? We confess that we should have been glad of a more definite announcement. It may be true enough that things have come to such a pass, that the mere cry of reform expresses almost everything. But platitudes of this kind are more easily uttered, and more quickly forgotten, than definite pledges. It would be something, indeed, to break in upon the Council with three new men? Such an infusion of fresh blood might prove a new starting point. But this accomplished—what then? Are we to stop there, or are we to have a definite policy announced? Unless men are to be found ready to carry out the wishes of the Profession, further changes must be made. Like the other Corporations, the College is too powerful. Its claws must be clipped. It must either be transformed into a representative institution, or sink to the level of the Barbers' Guild. A great opportunity is at hand. Shall it be lost through the insatiable selfishness of a clique?

Notes on Current Topics.

BIRMINGHAM LYING-IN HOSPITAL.—The Committee appointed some months ago to investigate the state of this hospital, have issued a report which concludes as follows:—"The recommendations which your Committee make may be summed up as follows—*a.* The in-patient department to be closed; *b.* The operations of the charity to be confined to midwifery cases; *c.* The out-patient department to be remodelled and widely extended; *d.* The employment of trained and certified midwives to be adopted as an experiment; *e.* The title of the charity to be changed to 'The Birmingham Lying-in Charity;' *f.* Ultimately it may be advisable to dispose of the hospital building in Broad-street, but it is recommended that it be retained until the result of the proposed changes be ascertained."

LONDON UNIVERSITY.—There is not likely to be any lack of candidates for this constituency. Mr. Bagshot, Mr. Wood, and Mr. Quain, Q.C., are already in the field, and the Committee of the last gentleman is actively at work. Our only objection to these candidates is, that they are not medical men. The Profession ought to be able to secure the return of a medical graduate, and we hope one will be found willing to come forward. In the late debate in the House of Commons, the position of the medical graduates was freely acknowledged. Why, then, should none be ready to seek the honour of representing it in Parliament?

NAVAL MEDICAL SERVICE.—An important change in the regulations for the admission of Assistant-Surgeons in the navy, has just been published. It requires all candidates in future to be registered as qualified to practice both Medicine and Surgery. This is a decided step in ad-

vance, and cannot fail to raise the status of the Naval Surgeon. Some special regulations are appended, and the candidate will still be subjected to a special examination. As a recompense for this ordeal, however, he will, through it, have the means offered of earlier promotion; for it is promised, that the best candidate of the year shall be promoted to the full surgeoncy, after five years' service; the second best man, after six; and the third man of his year, after seven years' service. Of course, this is provided that they pass their promotion examinations in a satisfactory manner, but this will not be a hard condition for the three best men of the year. We look upon these regulations with considerable satisfaction. For the first time, the double qualification is made the starting point, as it ought undoubtedly to be.

Scurvy in the Mercantile Marine.—A Bill for providing against the spread of scurvy in the Merchant Navy, and securing an adequate supply of genuine anti-scorbutic medicines, has appeared. By it a cubic space of seventy-two feet is apportioned to every seaman, in a well-ventilated and lighted portion of the ship, and the seamen's accommodation is to be inspected by the Board of Trade Surveyor when the ship is registered. The lime and lemon-juice is to be examined by competent persons, and stored in bond, to be issued as ship's stores under the ordinary regulations.

"Pall Mall Gazette" Testimonial.—We had the opportunity of inspecting during the past week the testimonial raised by the profession to the Pall-Mall Gazette, as a mark of appreciation of the spirited conduct of that Journal in reference to the Hunter trial. A description of the Testimonial will interest our readers, whether subscribers or not. It consists of a solid silver chased cup, with a figure on the top representing the Flight of Genius, on the front of the cup a chased medallion in oxodized silver, representing the crowning of wisdom and science in the presence of the virtues, together with a solid silver salver, on which is engraved—"Presented to George Smith, Esq., by members of the medical profession, and other friends, in recognition of the important service rendered to the community by the *Pall-Mall Gazette*, in successfully defending the action Hunter *v.* Sharpe, whereby the freedom of the press was once more vindicated, and the right of courageous and honest criticism affirmed, June 1867." The cup and salver, value 250 guineas, are designed and executed by Messrs. Ortner and Houle of 3, St. James's Street.

Poisoning no Murder.—The "glorious uncertainty of the law" has been beautifully displayed in the Court of Queen's Bench last week, in the case of Tully *v.* Corrie. Plaintiff was cook in defendant's family in July last year. While under notice to leave, her master gave her into custody in consequence of a suspicion that she had poisoned a particular gravy, after partaking of which every one in the house was taken ill. Evidence was tendered to shew that the cook did not take any of the gravy herself, nor give it to some of the other servants. Cook Tully having obtained her discharge, brought an action for false imprisonment against Mr. Corrie, and a *British jury* has awarded her £80 damages, but in the same verdict found that some noxious drug was really administered in the gravy! Surely a man *is* justified in giving into custody a cook who poisons the gravy. Why, then, should he be fined £80 for doing so? Such an inconsistent verdict cannot be allowed to stand.

Health of Edinburgh.—Some anxiety has been lately evinced at the high rate of mortality that has prevailed in the Scotch capital. Measles has been epidemic for months, and the *sequelæ* of this disease have proved unusually fatal. Scarlatina and whooping-cough have also been very prevalent. Now that summer weather has fairly set in, we may hope that chest complications will be less frequent, and when they occur, less serious.

Railway Accidents.—The case of Mr. Acton illustrates the difficulty of forming a prognosis in this kind of injury, and is, moreover, of considerable importance, from the decided hostility evinced by the Court to medical men becoming the agents for companies. Dr. Robertson is fully entitled to the credit of having avoided this practice, since he became aware of the opinion of the Judges, that it is not consistent with the position of a medical man. It is easy enough to understand how a Surgeon to a company may fall into the habit of making arrangements on behalf of his employers, but, inasmuch as he may be possessed of knowledge the patient cannot have, such bargains will always be looked upon by the public as one-sided, and will frequently be set aside by juries. Is it not, therefore, better for medical men to decline to interfere with matters that pertain rather to lawyers?

The Celsian Incision in Lithotomy.—Sir William Fergusson has lately reverted, in his practice at King's College Hospital, to the ancient proceeding adopted in the time of Celsus. Having introduced the staff, Sir W. Fergusson commences his operation with a lunated incision, the cornua, pointing downwards. He considers that this incision affords greater facilities for manipulation for the extraction of the calculus, and incurs less danger of wounding the rectum. He has lately operated upon two patients by this method with complete success.

Leeches.—These little animals, so useful in therapeutic agency, have been lately supplied to London and Paris from a new source. They have been sent in large numbers from Australia. When the fish are scarce with the Murray River Fishing Company, the men begin to pick up the leeches, which are so numerous that from 150,000 to 250,000, are sometimes collected in one trip of the company's steamers. From Melbourne they are exported chiefly to America, where leeches of the proper kind are everywhere scarce. Two or three millions, it is thought, will be collected and sold this season; and, no doubt, a remunerative trade will be carried on for years. It is stated that the Faculty, both in Paris and London, find them superior to any other obtained elsewhere.

Trousseau.—This veteran French Professor, whose death was prematurely announced a few months ago, has paid the debt of nature. He had long been suffering from a malignant disease of the stomach, and died on the 23rd ult. In him medicine loses one of her greatest expounders. As a teacher, Professor Trosseau was unrivalled. As a writer, as well as a practical physician, he stood for a long time great among the great ones of France. His funeral was conducted with the utmost

simplicity—it is said in deference to his own wishes on the subject. Nevertheless it was attended by an immense crowd of eminent men and students, who thus paid the last tribute of respect to the renowned physician. France has lately lost a considerable number of her eminent men. It is not long since we were called upon to say a few words about Jobert de Lamballe. Already there had been in type, but delayed, a notice of the death of Civiale, the lithotritist, and now the French School mourns the loss of Trousseau.

MALIGNANT PURPURIC FEVER.—A case is reported from London in the Registrar-General's return of last week—a publisher's clerk, aged 19; twenty-seven hours' duration. The Registrar-General observes "that down to the end of the seventeenth century, a heading under which many deaths appeared in the old London Bills of Mortality, was *Spotted Fever and Purples*, which means, probably, nothing more than fever in persons of a scorbutic habit." At the meeting of the Epidemiological Society of London, held on Monday, communications on this subject were read from Dr. Lyons and Dr. Mapother, of Dublin.

PAYMENT OF MEDICAL WITNESSES IN IRELAND.—The deputation from the Royal College of Surgeons in Ireland, to which we alluded last week as having proceeded to London, with the view of representing to the Government the advisability of introducing into the Common-Law Bill now passing through Parliament, a clause providing for the payment of medical witnesses at the same rate as in England, waited on the Attorney-General for Ireland, who received them, and heard with attention their representations to that effect. The Bill was read a second time on Thursday week, and was set down for Committee on last Monday evening. We hope to be able to inform our readers in another portion of our issue if any further progress be effected in this important matter.

ELECTION OF THE PADDINGTON MEDICAL OFFICER.—A meeting of the Paddington Vestry was held on the 18th ult. for the purpose of electing a medical officer of health for the district. Six gentlemen had been selected by the Committee for recommendation to the Vestry—namely, Mr. Bird, Drs. Hardwicke, Stevenson, Divers, Mushet, and Potter, from whom the Vestry would select one as Medical Officer of Health :—

As no one proposed either Dr. Potter, or Dr. Mushet, their names were withdrawn from the list.

Mr. Hall proposed, and Mr. Brettingham seconded, the nomination of Dr. Divers. Mr. A. G. Bicker Caarten proposed, and Mr. Gutch seconded, the nomination of Mr. Bird.

The Rev. Dr. Burns said he had great pleasure in proposing Dr. Hardwicke, who, in his opinion, was the best man for the office. The testimonials sent in by Dr. Hardwicke were unique, and incontrovertably proved that his qualifications were of the very highest character, and showed that he was specially adapted for the special work a Medical Officer of Health had to perform; and in his (Dr. Burns) opinion, if they were to search through the whole of the metropolis, they would not find a fitter officer than the gentleman he had the honour to propose. He had been acquainted with Dr. Harkwicke for many years, knew that he was a member of, and occupied a high position in several scientific societies, that he was a practical chemist of high repute; the author of several works from which his opinions were quoted, and he was held to be an authority in all matters relating to sanatory or medico-legal science. He was a gentleman of great experience and enlarged views; he possessed tact, activity, and the method of applying the remedy to the evil at once; he was courteous and urbane, and his reputation was European in all matters appertaining to the technicalities, the legal and the chemical programme of sanatory and medical science.

Mr. Dickinson said he had great pleasure in seconding the nomination, in his opinion Dr. Hardwicke was pre-eminently qualified for the appointment he sought.

The Vestry then proceeded to elect, and with the following results:—For Mr. Bird, 4. For Dr. Stevenson, 18. For Dr. Hardwicke, 29.

Dr. Hardwicke was then called in, and on being informed of his success, he expressed his thanks in an appropriate manner.

The vestry then adjourned.

Foreign Medical Literature.

INVESTIGATIONS RESPECTING ARTERIAL DILATATION AS A RESULT OF NERVOUS IRRITATION.

By Dr. CHRISTIAN LOVEN.

TRANSLATED FROM THE "HYGIEA" FOR NOVEMBER, 1866, P. 425.

By WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; EXAMINER IN MATERIA MEDICA AND MEDICAL JURISPRUDENCE IN THE QUEEN'S UNIVERSITY IN IRELAND.

(Continued from Vol. iii., page 611.)

3. THE diminution in the pulsation of the heart observed in irritation of a sensory nerve, is brought about pre-eminently by reflex irritation of the nervus vagus, the number of the pulsations falling, after the division of this nerve, either not at all, or only inconsiderably. It may even, as von Bezold has shown, under such circumstances, rise considerably. Whence this opposite change of the impulse of the heart proceeds, must for the present be left undecided.

From the facts hitherto communicated, it now, however, follows that the dilatation of the blood-vessel which occurs on irritation of a sensory nerve, cannot be caused by the increased pressure of the blood, but that, on the contrary, the contraction of the arteries is the most active cause of the latter. If, we must further conclude, the arteries of a vascular circuit be dilated, the tone of their nerves must previously be depressed. This must incontestibly hold good for all the cases in which a dilatation occurs, without an increase of the pressure of the blood above its normal value being at the same time observed. If a diminution in the tone of individual vascular circuits be united with an augmented pressure of the blood, a very considerable dilatation of all the vessels in the circuit to which the relaxed arteries belong must evidently take place. To this circumstance, as I will even now remark, it apparently ought to be ascribed, that the irritation of sensory nerves very often produces in their circle of distribution a much more intense redness than would arise in consequence of division of corresponding filaments of the sympathetic.

2.—*On arterial dilatation from irritation of the posterior and anterior auricular nerves.*

As our literature does not afford an accurate description of the nerves which ramify in the external ear of the rabbit, I may be permitted first to interpolate some anatomical facts.

The external ear in the rabbit receives branches from the first cervical ganglion of the sympathetic, from two spinal nerves (the anterior and posterior auricular), and from four cerebral nerves, namely—the facial, the trigeminus, the vagus, and the glossopharyngeal.

The *sympathetic nerves*, as is well-known, take their origin from the inner margin of the first cervical ganglion, and run in close connection with the arteries ramifying in the ear.

The *anterior auricular nerve*, from the cervical plexus, but principally from the anterior branches of the second and third cervical nerves, arises at the posterior margin of the sterno-cleido mastoid muscle, and runs, covered only by skin and cutaneous muscles, forwards and upwards

towards the external ear. It receives some branches from the superficial cervical nerve, sends some small branches to the skin over the parotidean region, and finally divides into two branches, of which one turns forward to ramify on the anterior side of the posterior thin edge of the ear, while the other runs in the middle of the posterior surface, where it spreads out as far as the tip.

The *posterior auricular nerve* arises from the posterior branch of the second cervical nerve, passes, after having given off some muscular branches among the deep muscles of the neck, outwards and forwards, covered by a couple of thin muscular layers, to the upper side of the root of the external ear, and through a cartilaginous process thereof, to and along its anterior, obtuse margin.

The *facial nerve* gives to the muscles of the external ear, a great number of branches, partly before the trunk of the nerve has emerged from the canal of Fallopius, but partly first, in front of the meatus auditorius cartilagineus.

The *auriculo-temporal branch* of the Trigeminus, arises at the posterior margin of the branch of the infra-maxillary ascending from the fossa, and divides immediately into three principal branches, of which one passes outwards and downwards to anastomose with the facial, one ramifies in the temporal region, and the third is resolved into two or three long fine filaments, which may be traced as far as the indentation found in the inferior margin of the orifice of the ear.

Arnold's nerve (ramus auricularis vagi), is in the rabbit, comparatively speaking, not inconsiderable. It arises high up in the foramen lacerum by two roots, of which one proceeds from a ganglion of the vagus, the other from the glosso-pharyngeal nerve ; it then passes through a proper bony canal in the supero-posterior wall of the cavity of the tympanum to the Fallopian canal, where it partly connects itself with, partly continues its route obliquely over, the facial nerve, to emerge through the bone upon the upper surface of the cartilaginous tube of the ear ; here it applies itself through a certain length to the cartilage, but finally perforates the latter, and is resolved, on the concave side of the muscular structure of the ear, into its terminal branches.

In order to be able conveniently to observe the changes occurring in the diameter of the auricular vessels, and to avoid all disturbances of the circulation, which might be caused by alterations in the ear, a fixed position was given to the head and ear, capable of being maintained undisturbed during the whole experiment. For this purpose a vice was used, ordinarily employed in such cases in the Leipsic Laboratory. It ought to be unnecessary more fully to describe this simple instrument—for distinctness, it is sufficient to say, that the head is held up by a cradle which catches round the cheeks, and that a forceps seizes the apex of the outer ear, and keeps it extended without exercising any pressure on its root or intervening portion. After the head and ear have been fixed in this manner, the two auricular nerves are in succession sought for, doubly tied, and finally divided between the ligatures. The peripheral and central ends of the divided nerves can now be isolated and conveniently irritated, by means of an ordinary galvanic battery. I must most decidedly warn the operator, in such experiments, always to try the properties of both nerves, as I have found, that in the following the phenomena described were not produced with equal distinctness by each, but that at one time one, at another the other, was in this respect especially active.

By Snellen's experiments it was first established, as is well-known, that a painful irritation of the central stumps of the nerves mentioned produces first a contraction, and afterwards a dilatation of the arteries of the ear. This series of phenomena we meet with also undoubtedly in most cases, when we experiment on a sound and lively animal. The route by which both the contraction and the dilatation are brought about, passes through the auricular nerve to the medulla oblongata, and thence through the cervical trunk of the sympathetic to the vessels of the ear. The proof of this lies, as is well-known, in the fact that after division of the sympathetic cervical trunk, the already red ear does not become perceptibly more highly coloured through irritation of the sensory nerve stump.

Before proceeding to the results I obtained in repeating Snellen's experiment, I ought also to remark that I can likewise confirm M. Schiff's statement, that the spinal auricular nerves contain filaments, which stand in direct connection with the circular muscles of the arteries. Division of one or other of the nerves mentioned produced in general a persistent dilatation of a part of the artery in the ear of the side operated on. This dilatation extended usually merely over the part of the artery running in the neighbourhood of the apex, and was capable of being changed to its opposite by irritation of the peripheral stump, and particularly also in cases where the cervical trunk of the sympathetic had previously been divided. In this latter modification of the experiment the artery continued to be dilated for the greater part of its course through the ear, while, on the contrary, it was contracted in the tip and lateral parts of the organ. Usually the contracted part was quite sharply defined from the dilated.

I now return to the results obtained by irritation of the central nerve-stump. When a strong, unpoisoned animal was employed for the experiment, it was observed in most cases that after the commencement of the irritation the auricular artery was contracted. This occurred the more certainly and rapidly, the more vehemently the animal by cries and movements manifested its pain. The contraction of the artery continued for a time, certainly different in different cases, but always very short, and afterwards gave place—and this while the irritation still continued—to dilatation. The latter always commenced in the trunk of the auricular artery, and proceeded thence rapidly to smaller and smaller branches. It was not until this had taken place that the veins filled, and the ear acquired a deep red colour.

The chief interest connected with the above experiment seems to me to lie in the decision of the question, how far the dilatation occurs merely in consequence of the previous contraction—in other words, whether the dilatation is a result of the exhaustion produced in the sympathetic by the previous effort. If this were so, we should expect that a certain proportion should exist, with respect to duration and intensity, between contraction and dilatation. But this, as we easily discover from a larger number of experiments, is by no means the case. Sometimes the subsequent dilatation is the more considerable, the more marked the preceding contraction was, but in many other cases a scarcely perceptible contraction is followed by a very considerable dilatation. Once it happened even in an unpoisoned animal, that immediately after the commencement of the irritation a very considerable dilatation occurred without the slightest trace of preceding contraction —a phenomenon which, in the animal in question was repeated as often as the irritability of the sensory nerve still permitted the renewal of the experiment.

Just as these circumstances are incompatible with the assumption that the vascular dilatation is caused by exhaustion of the sympathetic after previous effort, seems to me to be the case with respect to another fact. Thus, if we irritate the exposed cervical trunk of the sympathetic nerve, so as to give rise to a contraction of the arteries, as persistent or still more persistent than that which an irritation of the sensory nerve stump is capable of producing, we sometimes certainly observe, after the close of the irritation, a slight dilatation of the vessels of the ear ; but never did I see this nearly so considerable as after irritation of the auricular nerve. Hence it clearly follows that it is by no means so easy to exhaust the sympathetic nerves.

In order that the experiment might acquire greater purity and that the special circulation of the blood might be independent of the violent movements of the limbs and thorax, I gave up the observation of the unpoisoned animal, and, turned to the use of curare. Hereupon I was favoured

in the very commencement of my investigations with such a measure of success, that I lighted upon a great number of animals, in which irritation of sensory nerves in various parts of the body always forthwith produced a dilatation of the vessels which was often much more considerable than that following on division of the corresponding sympathetic trunks. For this, but still more for another reason, the observations alluded to testified against the theory which would make the dilatation a result of exhaustion. In fact, there now commonly followed upon the dilatation, and this either while the irritation continued, or immediately after its close—a contraction, which in some cases was more considerable than it had been before the irritation. As a further illustration of the case, the following series of observations, with the addition of the determinations of the times, may be given:—

Number of the Experiment.	Nerve.	Intensity and duration of the irritation.	Occurrence of the dilatation after the commencement of the irritation.	Occurrence of the contraction after the commencement of the irritation.
1	Nerv. auric. ant.	Moderately strg. 15 scds.	5 seconds	35 seconds
2	,, ,, ,,	,, ,, 22 ,,	6 ,,	40 ,,
3	,, ,, ,,	,, ,, 17 ,,	6 ,,	28 ,,
4	,, ,, ,,	,, ,, 12 ,,	5 ,,	22 ,,
5	,, ,, ,,	very strg. 5 ,,	5 ,,	15 ,,
6	,, ,, post	weak 17 ,,	4 ,,	16 ,,
7	,, ,, ,,	stronger 15 ,,	5 ,,	30 ,,

The dilatation which occurred after irritation of the sensory auricular nerves on one side, was in some instances completely limited to the ear of the side operated on, but in many other cases it extended also to the ear on the side not operated on. Here, however, the redness was much slighter, began from two to four seconds later, and, except in a single instance, passed earlier into paleness, that is, contraction of the vessels, on the side operated on.

If I had not extended my experiments to a much greater number of rabbits, I should, from this successful commencement, have been tempted to consider it as a peculiarity in animals under the influence of curare, that in them irritation of the sensory nerve-stumps at once produces dilatation of the vessels. Continued investigations showed me, however, the opposite, as I subsequently several times met with animals, who were affected as is usually the case in unpoisoned animals. However, curare always promotes the occurrence of the primary redness.

3.—*Dilatation of the arteria saphena by irritation of the nervus dorsalis pedis.*

Starting from the known fact, that painful impressions on the human skin commonly produce redness therein, I believed it, *a priori*, probable that the phenomenon observed in the ear would be met with also in other parts of the rabbit's body. In the choice of the place to be tried, care should be taken that no nerve trunks should be tetanised, in which, with the sensory fibres, run sympathetic fibres of the arteries on which we wish to observe the dilatation. As the sympathetic branches usually attach themselves to arterial trunks of the higher order, the saphena artery is in the rabbit particularly well adapted for such an experiment, as it receives its sympathetic branch from the lumbar plexus, and separately from the nervus saphenus. The dependence of the arterial muscles on the nerve mentioned is easily seen, for if we divide the nervus saphenus, the artery of the same name is suddenly dilated, while, if we irritate the peripheral stump of the nerve, the vessel contracts. The arteria saphena ramifies down to the foot, so that the nervus dorsalis pedis is one of the nerves belonging to its circuit of distribution.

But, not merely from this circumstance, but also from its origin and course, is this artery especially suitable for observation. It arises from the crural artery, before the latter perforates the adductors, and runs as a very fine red cord along the inner side of the leg. Although in an animal under the influence of curare it is ordinarily much contracted, it is, nevertheless, always easily found, because it is accompanied on both sides by veins—an anterior larger, and a posterior smaller vein. I cannot avoid remarking that I met with two cases in which the artery, instead of running down to the ankle, terminated in that one of its branches which passes, on the inside of the knee-joint, into the rete patellare. In dissecting the artery we must, of course, take care not to injure the nervus saphenus, which accompanies the vessel.

I accidentally commenced my experiments with irritation of the central extremity of the nervus dorsalis pedis in the very same animal in which irritation of the auricular nerves immediately produced a dilatation. The saphena artery now behaved precisely as the auricular had done. Just as before happened in the ear, a quite extraordinary dilatation suddenly took place, in from four to six seconds after the application of the irritation, in the previously only just visible vessel, which rapidly increased to its maximum, and again completely disappeared in some seconds after the removal of the galvanism. The artery not merely became dilated, but also began to pulsate strongly, which was particularly well seen on holding the leg somewhat bent at the knee-joint, inasmuch as the vessel was then strongly raised and rolled by every wave of blood thrown into it; the phenomenon could for a very long time be repeated in the same animal. In several experiments subsequently instituted in the same manner, I obtained, almost without exception, the same result; and I may, moreover, add that irritation of the tibial nerve, below the inner malleolus, also leads to the same. In a couple of cases certainly dilatation occurred, but it was of only very short duration, and disappeared even while the irritation was going on. The same was observed also in those cases where the phenomenon at first appeared fully developed, but where either the irritant employed was very strong, or the experiment was too long continued. These irregularities are, therefore, in all probability, ascribable—as in the latter cases to exhaustion—in the former to an accidental weakness in the irritability of the nerve.

The question quite naturally here presents itself: how far this dilatation extends? Is it limited to the artery in question, or do perhaps a greater number of arterial vessels take part in it? To enable me to answer this question, I observed in three experiments during irritation of the nervus dorsalis pedis, both the femoral artery freely dissected through its whole course, from the groin to its passage through the adductors, and also some muscular branches given off from the same. As to the latter, Ludwig and Thiry have mentioned that muscular arteries in general very quickly lose their irritability; in this case also no distinct results could be obtained as to the point in question. It is indeed, moreover, possible, that these vessels were placed, by the necessary preparation, in a state of lessened irritability, or, perhaps, even of paralysis, so that we cannot expect from them any information as to the effect of peripheral irritation. Though I, therefore, do not venture altogether to assert positively that the muscular arteries, under the circumstances referred to, do not at all dilate, thus much is at least certain, that the dilatation which may have occurred did not cease on the removal of the irritant, but that the vessel remained in the same state, so long as the experiment continued. About the same may be said of the main trunk of the femoral artery. This seemed, indeed, in the beginning of the experiment to dilate somewhat, but did not afterwards further alter its diameter. We could then, also, quite evidently see that the changes above described belong properly only to the cutaneous branch mentioned, as they always commenced precisely in the place where the cutaneous artery arises from the crural artery, and, what seems still more remarkable, while the pulsations in the branch were so strong, they appeared quite inconsiderable in the large artery, and were not all increased on irritation.

The apparently paradoxical fact, that so small a branch

of the crural artery pulsated while the pulsation of the main trunk itself was scarcely perceptible, is easily explained by the unequal resistance of the vascular walls, and precisely this inequality in pulsation shows that the relaxation was limited to the wall of the arteria saphena.

In the course of my observations having met with curarised rabbits, in which irritation of the auricular nerves produced a primary contraction, I found that irritation of the nervus dorsalis pedis in the same rabbits also produced a primary contraction, and that in the animals in which irritation of the auricular nerve produced at one time dilatation, at another contraction of the vessels of the ear, irritation of the nervus dorsalis pedis behaved in the same manner with respect to the arteria saphena. However, this coincidence is not without exception, for I have observed an animal whose auricular artery was primarily dilated, while the saphena became alternately wider and narrower.

I have also instituted a series of experiments upon other parts of the body than those already mentioned. On the whole, these were, however, not numerous. Nowhere were such well-marked phenomena obtained immediately on the first experiment as the ear and skin of the leg exhibited. Thus, in two experiments, the sensory facial nerves (the infra-orbital, supra-orbital, and mental) were irritated, the freely dissected external maxillary artery being at the same time observed. In the commencement of the experiment we succeeded in producing, by irritation of the infra-orbital, a dilatation passing off with the irritation, and increased pulsation of the vessel, but the phenomenon could be produced only a couple of times in the same animal. The arteries of the fore-arm behaved in a similar manner on irritation of its cutaneous nerves ; on the other hand, no dilatation of the external mammary artery could be obtained by irritation of the nerve running with the artery to the lacteal glands.

Sometimes curarised dogs were subjected to the same experiments, but these animals proved unsuitable for the object in view. If the sensory nerve was irritated, dilatation of the arteries certainly seemed to occur, but the previously contracted condition did not return, even if the irritation was discontinued for several minutes. From the small number of experiments I performed, I cannot with certainty state whether this is a general or only an individual character in the dog.

(To be Continued.)

Proceedings of Societies.

HARVEIAN SOCIETY'S COMMITTEE FOR THE PREVENTION OF VENEREAL DISEASES.

APPOINTED 21ST FEBRUARY, 1867.

REPORT OF THE COMMITTEE.

Owing to various reasons, the attention of the public has of late years been drawn to the enormous evils which result to society from the extent of the spread of the so-called venereal diseases among all classes. So severely have the ravages of these complaints affected the British army, that, in the year 1864, the army statistics showed that, of an average number of 73,000 troops stationed in the kingdom, there was a "loss of service by venereal diseases, in the whole force, of nearly an entire week of that body's time." Again, in the year 1862, of 88,600 men of the Royal Navy admitted into hospital, 7000 were so admitted for venereal diseases. To remedy these evils the Parliament of Great Britain passed first an Act, entitled the "Contagious Diseases Prevention Act," which came into operation in December 1864 ; and subsequently a Royal Commission was appointed, which examined a number of medical men and other witnesses, and was styled the "Venereal Diseases Commission." The result of the labours of this Commission was the passing of an Act of Parliament, entitled the "Contagious Diseases Act of 1866." The object of this Act being merely the prevention of venereal diseases in the Army and Navy, its operation holds good only for the towns of Portsmouth, Plymouth, Woolwich, Chatham, Sheerness, Aldershot, Windsor, Colchester, Shorncliffe, the Curragh, Cork, and Queenstown, all of which are military or naval stations.

The general features of the "Contagious Diseases Act, 1866," are, that the police of the above-mentioned towns have the power of causing any common prostitute, carrying on open prostitution in these places, to be taken to a dispensary to be examined as to their state of health, and, if diseased, of enforcing their stay in Government hospitals until cured. Added to this the very satisfactory results respecting the diminution of venereal disease in many of the French and foreign towns, tended much to encourage somewhat similar attempts in this country. At this juncture it was that the promoters of the "Congrès Medical International de Paris, 1867," proposed the following question to its various members :—*Question* 3. "Est il possible de proposer aux divers gouvernements quelques mesures efficaces pour restreindre la propagation des maladies vénériennes ?"—*i.e.*, Is it possible to propose to different governments some efficacious measures against venereal contagion ? Incited by the foregoing causes, the members of the Harveian Medical Society of London came to the resolution, on Feb. 21st, 1867, on a motion proposed by Dr. Drysdale and seconded by Dr. T. Fox, that a Committee should be formed for the following purpose—"To investigate the extent of the spread of the contagious diseases, commonly called venereal diseases, among the population of this country ; to discuss the best means for preventing that widely extended evil, and to report thereon to the international congress to be held this year in Paris." The Committee consisted of members of the society especially interested in this question ; and they have invited the co-operation of several distinguished members of the profession, who have devoted their attention to the subject. The following gentlemen have taken part in the deliberations of the Committee—"Dr. Pollock, the President, Mr. Acton, Dr. Bazire, Dr. Beigel, Dr. Broadbent, Dr. Chapman, Mr. W. Cooke, Mr. H. Coote, Mr. W. Coulson, Mr. Curgenven, Dr. C. Drysdale, hon.-sec., Mr. R. W. Dunn, Dr. T. Fox, Mr. Gascoyen, Mr. E. Hart, Mr. B. Hill, Dr. Hjaltelin, Mr. J. Lane, Dr. Maudsley, Dr. Menzies, Dr. Meredyth, Mr. de Meric, Dr. Semple, Mr. Sedgwick, Dr. Steele, Dr. Stuart, Mr. Teevan, Mr. H. Thompson, and Dr. Vintras.

The Committee at their first meeting, in March 13th, determined to send out circulars to all the large hospitals in Great Britain and Ireland, requesting to be informed as to the daily number of venereal cases seen at each hospital ; the proportion of these cases to the surgical cases seen ; and the number of beds set apart for such cases in each hospital. This was accordingly performed, and the Committee have to express their warmest thanks to the various surgeons and other gentlemen of these hospitals, for the important information furnished by them. From these reports it will be seen that the damage inflicted on the general population by contagious venereal diseases is enormous, and it would not, perhaps, be too much to say, that no disease of a preventible character causes greater evils among society at present in this country than these do. Thus the report from Mr. Coote, surgeon to St. Bartholomew's Hospital, shows an average daily number of 174 venereal cases seen, or about half of the surgical out-patient cases. The report from Guy's Hospital, by Dr. Steele, shows that about 43 per cent. of all the out-patients seen annually are venereal. Of the surgical out-patients far more than half are venereal according to Mr. Cooper Foster. The Royal Free Hospital, London, sees daily 117 cases of venereal disease, or three-eighths of its surgical cases are venereal. At the hospitals of King's College, University College, St. Mary's Hospital, Westminster, the London Hospital, the Middlesex Hospitals, and the Metropolitan Free Hospital, the number of venereal cases seen varies from one-third to one-fifth of the out-patient surgical cases daily seen at these hospitals.

The London Lock Hospital sees daily 179 male and 39 female out-patients. It has never more than 30 beds available for the prostitutes of London, the majority of its beds being kept for government cases under the Contagious Diseases Act, 1866. At the *Dreadnought* Seamen's Hospital, London, about 50 cases of venereal disease are seen daily among the sailors of the mercantile marine, who are much infected by venereal diseases. In the Ophthalmic Hospital of Moorfields, one-fifth of the cases of eye disease among the out-patients are reported by Mr. Hutchinson as being caused by syphilis.

There are very few beds for venereal patients in London. Thus, the Lock Hospital, as before said, has not more than 30

beds available for poor women or prostitutes afflicted with even the gravest affections, and according to Mr. James Lane, and Mr. Gascoyen, is constantly compelled to send away applicants, even with large ulcerations of the genitalia, for want of room. Guy's Hospital has 56 beds for venereal patients, 25 for men, and 30 for women. St. Thomas's Hospital, which used to have venereal beds, is not in good working order at present. The Royal Free Hospital has 26 beds for female cases; and women are daily sent away, suffering from the most contagious conditions of disease. The Middlesex Hospital has only 11 beds for female venereal cases. Venereal cases are not admitted into St. George's Hospital as a rule, or into St. Mary's, University College, or many other of the London hospitals. There are only about 4 beds for female venereal cases at the London Hospital, which has no less than 450 beds, and very few at others, with the exception of St. Bartholomew's Hospital, which has 25 beds for men and 56 beds for women. There are thus, in the whole of London, with a population exceeding 3,000,000, probably not much more than 150 beds in hospitals available for prostitutes, or poor women with contagious venereal diseases. Now, in 1865, there were in London, according to the Police Reports, entitled "Judicial Statistics," close upon 6000 prostitutes well-known to the police, and classed by them with thieves, and other bad characters. This, however, probably does not include more than one-third of those who gain their living by prostitution, and, as a very great proportion of them are diseased, it can well be imagined how inadequate the supply of beds is for this population, all of whom are spreading far and wide the evils of contagious venereal disease.

One important fact has been elicited from the enquiries made by the Committee of the Harveian Medical Society, and that is, that the Workhouses of London do not, except to a very limited extent, take in prostitutes, when suffering from these diseases, but send them off to beg for the shelter of the very inadequate number of beds provided for them in the Lock and other charitable institutions. Thus, the Strand Workhouse, the Whitechapel Workhouse, the City of London Workhouse, the Paddington Workhouse, St. Olave's Workhouse, Lambeth Workhouse, Shoreditch Workhouse, St. Martin's Workhouse, Hackney Workhouse, Bethnal-green Workhouse, St. Luke's Workhouse, St. Giles' Workhouse, and Newington Workhouse, do not seem, collectively, to devote above three dozen beds to the reception of female venereal cases, and send off such applicants to the Lock Hospital (to which they subscribe certain sums annually), to the Royal Free, or St. Bartholomew's, or Guy's Hospital, to struggle for admission with a host of unfortunate applicants, many of whom being rejected, are forced to go on with their trade in order to live.

The effect of syphilitic disease upon the health of children was shown by the report from Dr. Williams, from the London Hospital for Sick Children, Ormond-street. This report shows that, in 1866, there were 93 boys and 105 girls affected with syphilis, out of 1007 surgical cases seen, or about one-fifth. In hospitals and dispensaries for the treatment of skin diseases, from one-eighth up to four-fifths of the cases are reported by Dr. Hunt and others to be secondary syphilitic cases. There still exists a strong feeling in the mind of the public that venereal diseases, being brought on for the most part by promiscuous intercourse between the sexes, ought not to have the same attention shown to them as any other class of diseases. This feeling has produced the result that, at many dispensaries and hospitals in London and the provincial towns, no venereal cases are admitted. Thus, St. George's, St. Mary's, University College Hospital, London, and others, do not profess to treat such cases. Mr. Jackson reports from South Staffordshire Hospital that there are no beds for such cases. The Portland-town Free Dispensary says it is one of the rules that no venereal patient is to be admitted to the benefits of the charity. Islington Dispensary, likewise, has scarcely any venereal patients. Other dispensaries, again, as the Farringdon Dispensary, London, according to Mr. Dunn, report that as much as one-eighth of the surgical cases are venereal. The report from the Nottingham General Hospital says that "Primary sores and gonorrhœa are seldom seen; a certain class of practitioners and the quacks get hold of them all." In the Hull General Infirmary there are no beds for such cases, as also in the Dumfries General Hospital. The consequence of these regulations of the Committees of the various hospitals, of course is, that a vast number of cases of venereal disease in all of our large towns remain untreated, and thus contagion is propagated on all sides; and, besides this, patients are thus encouraged to seek the aid of unskilled and uneducated persons, to the great detriment both of their health and their pockets. In London, according to Mr. Coote, the worst cases of disease came from the Whitechapel District, East, where there is really nothing worth calling accommodation for the large number of diseased prostitutes of that poor and densely-peopled district. It is to be hoped that this may soon be remedied.

With regard to the accommodation for venereal disease in other towns in Great Britain and Ireland, it seems to be as inadequate in all the large towns except Dublin, which has a Parliamentary grant, as it is in London. Very few towns have lock hospitals at all; and those which have such have far too few beds for all patients requiring admission. Liverpool, Southern, and other hospitals send their venereal cases to the Lock Hospital, which has fifty beds, and an average of forty-five inmates of these beds, male and female. The Dublin Lock Hospital only admits female cases, and has, on an average, 86 such cases, and no out-patients. Staffordshire General Infirmary has four male and four female lock beds, frequently empty. Chester Infirmary has, on an average, two female lock patients. In the Royal Infirmary of Edinburgh, according to Dr. Gillespie's report, there are 26 venereal beds, the Edinburgh Lock Hospital is only for females. The Royal Infirmary of Glasgow has no beds for venereal cases; and the Glasgow Lock Hospital has only 45 beds for these cases. Belfast General Hospital has six venereal inmates, and a small ward set apart for females.

The importance of the late Government examinations in reducing the amount of venereal disease in the localities which are placed under the operation of the Act is shown by the fact vouched for by Dr. Stuart, of Woolwich, Government Inspecting Officer under the Act, that, although the Act came into operation only in October, 1866, the amount of disease in April, 1867, was only one half of what it had been in Woolwich, and consisted, in a large proportion of cases, entirely in gonorrhœa. The examinations, too, at Woolwich had as yet been confined entirely to women *suspected* of being diseased. In October, 1866, the proportion of cases of venereal disease found among the troops quartered at Woolwich was 1·75 per cent., and by April, 1867, the proportion of cases belonging to the troops in the garrison was not much over a half per cent. of their number, or less than a third of what it was. Again, it appears that at Sheerness there have only been 36 admissions for venereal disease into the Garrison Hospital from January 1st to April 22nd, 1867, whilst Aldershot, which in April, 1867, had not yet been put under the operation of the Act, was reported by Mr. Powell in April, 1867, as being in a deplorable condition with respect to venereal disease. There were two venereal female wards in the workhouses with 18 beds adjoining the camp (which contains 10,000 men), and a fever ward had also to be used for the poor diseased women, with an average of only 200 cubic feet for each patient. The consequences of this was the excessive severity of the cases, and an extensive infection of the troops. By this time it is believed that sufficient accommodation has been obtained for the poor diseased women; and that this terrible state of things is much mitigated. In the Herbert Military Hospital, Woolwich, there is a daily average of 84 venereal cases. All venereal cases in the army are treated as in-patients; and, according to Mr. Teevan, this regulation is a bad one, often causing soldiers to have recourse to chemists and other surgeons, instead of going to their own army medical man, because they object to low diet, and detention in-doors.

Dr. Nankwell reports that there are forty female venereal beds at Chatham for prostitutes, under the Contagious Diseases Act, 1866. The disease is much milder and less frequent in consequence of the operation of that Act. The result of the various reports which the Committee have received, have led them to hope that a very great deal might be done towards the prevention of venereal diseases, which are now so serious an evil in this country, and especially in large towns. Paris, a very much less populous city, has upwards of 450 beds for female venereal cases, and 336 for males, whilst London has not much more than 150 female beds at present for women affected with these diseases, and certainly not much over 100 beds for male venereal cases—a provision so inadequate as completely to account for the excessive frequency of these diseases, as seen in the practice of hospital medical officers, and also of private practitioners. Mr. Acton has calculated that there ought to be 1500 beds for males and females in London, devoted to such cases in order to be in proportion to those so devoted in some of the

Continental towns, and the Committee are of opinion that even this is not an exaggerated estimate. The Committee earnestly hope that the hour has at length arrived when the attention of the profession and the public may be aroused to the enormity of the existing evils; and the necessity of doing something towards preventing so preventible a class of diseases as those commonly called venereal disease. Small-pox has, in many communities, been effectually stamped out by means of Government legislative measures; and there is no reason why the same attempt should not be made in this country, to prevent the spread of one of the most grievous plagues, to which the human race is a prey.

The facts above stated are the results of the investigations of the Committee, extending over a period of four months. They have been elicited by enquiries addressed to the medical officers of a large number of the hospitals, dispensaries, and workhouses throughout the kingdom. After repeated discussions upon the above-mentioned facts, and having ascertained the enormous amount of preventible disease existing, and the entire inadequacy of the existing means for treating, as well as for checking its extension, the Committee have adopted the following resolutions, by a great majority of its members :—

"That there is a great deficiency of hospital accommodation in London, and other large towns of this country, for patients, especially females, affected with venereal diseases."

And furthermore (considering that the sanitary regulations in various foreign countries have been of the most signal service in checking the amount, and mitigating the severity of these diseases; and, also, that great advantage has already been derived, in a very brief period, by the operation of somewhat analogous methods in this country, in the military and naval stations, from the operation of the Contagious Diseases Act of 1866), the Committee are of opinion :—

"That regulations similar to those contained in that Act might be carried out by the police, without difficulty, among the civil population, in London and other large towns, the essential features of the system being as follows :—

"That a register of all women known to be acting as prostitutes, should be kept by the police. That such women should be required to submit themselves to a periodical examination by a medical officer appointed for that purpose, and that, when found to be suffering from venereal disease, they should be detained in hospital until cured—additional accommodation being provided for that purpose.

"It is desirable that the registration of women above suggested should be kept for the private use of the police authorities only, and should be in no way accessible to the public; also, that no certificate of health should be given to the women on the occasion of their periodical examinations, and that when discharged from hospital, the certificate of cure should not be given to the women themselves, but be forwarded to the police authorities.

"The object of the Committee in suggesting legislative interference is solely the prevention and cure of venereal disease, and they believe that this desirable end would be, to a great extent, obtained by regulations, such as those above suggested, which would be sanitary in their operation, and which would involve no public recognition of prostitution, and no registration of prostitutes, or of houses used for the purpose of prostitution, that would be available to the public.

"The carrying out of the above system would require the maintenance of a number of beds for persons affected with venereal disease at the public expense, and the Committee, therefore (considering the vast amount of preventible venereal disease exisiting in London, and other large towns, and also the fact that poor women, when suffering from such diseases, are not admitted into the workhouse infirmaries, but are, in the majority of cases, sent to the Lock Hospital, which is quite inadequate for their reception), are of opinion that provision should be made for the reception of such persons, either in special hospitals, or in special wards set apart for such cases in workhouse hospitals; and they would suggest whether it would not be possible that provision should be made for this purpose, in the new Poor-law arrangements of Mr. Hardy's Bill."

In conclusion, the Committee cannot help expressing their earnest hope, that the time has at length arrived, when the society of this country shall become alive to the distressing amount of human suffering caused by the prevalence of contagious venereal diseases, and the extreme and pressing necessity of endeavouring efficiently to prevent the frequency, and mitigate the severity of these pests.

ST. ANDREWS GRADUATES' ASSOCIATION.

Dr. RICHARDSON, President, in the Chair.

A MEETING of the Council took place on Friday afternoon at the Freemason's Tavern. Present—Drs. Richardson, Crisp, T. Dyer, Rogers, Ray, Sheppard, Dudfield, Ballard, Day Goss, Prosser James, Leonard Sedgwick, Day, W. Williams, Tanner, Abbotts Smith, Seaton, Leonard, and others.

The minutes of the general meeting (we have already reported) were read and confirmed.

Several encouraging letters from officers and others were read to the Council. A letter from Mr. Slater Booth, Secretary to the Poor-law Board, in reference to honorary degrees. It would appear from the letters that a number of graduates have already taken the hint that has been offered, and have brought their influence to bear upon individual members of Parliament.

Moved by Dr. DUDFIELD, seconded by Dr. THISTLETON DYER :—

"That a deputation be formed to wait upon Sir Graham Montgomery, who has charge of the Scotch Reform Bill."

It was agreed that the deputation should consist of the Council, with other members of the Association, and members of Parliament favourable to the movement.

On the motion of Dr. DAY, of Stafford, seconded by Dr. EDWARDS CRISP, it was agreed that the Secretary should address a memorial to the Senatus Academicus of the University of St. Andrews, informing that body of the object of the Association, and especially urging upon it to assist the graduates in obtaining a voice in the representation of the University.

Dr. ROGERS proposed, and Dr. WILLIAMS seconded :—

"That the President and Secretary be a sub-committee to collect and print the facts respecting the number of rejections in the examinations, &c., and to circulate them amongst members of the Association and others."

It was thought that the individuals could use them to advantage in communications with their representatives in the House of Commons.

OBITUARY.

SIR STEPHEN LOVE HAMMICK, BART.

THIS gentleman died on the 15th of last month, at the advanced age of 90 years and upwards, being born February 28th, 1777. He began his medical career at the Royal Naval Hospital, Plymouth, when he was very young, where he became Assistant Surgeon and Lecturer, and performed many important operations before qualifying as a surgeon; indeed, at that time a diploma was not considered so much a *sine qua non* for a man in his position who had enjoyed so many opportunities of instruction, and witnessed so many operations, in which he had largely assisted, as, with our advanced science and more perfect system, it is reckoned now-a-days. At 22 years of age, however, he entered at St. George's Hospital, London, as pupil, and, very shortly after, applied for admission to the Corporation of Surgeons, by examination. In October, 1799, he became a member of that body, returned to Plymouth, and was immediately appointed full surgeon to the Naval Hospital. He remained in connexion with it for 30 years, when he requested and obtained permission to retire from public service. He then came to London and took up his residence in Cavendish-square. Through the influence of the friends he had made at Plymouth, he was appointed Surgeon to the King, and obtained a good general practice among naval officers and the higher classes of society. He was elected to the Senate of the London University, when that institution was founded, and was Examiner in Surgery there for some years. The baronetcy was conferred upon him in 1834, probably in acknowledgment of his services in the Naval Hospital, where he himself performed numerous operations, and was present at those performed by others in the military hospitals, the prison depôts, and hospital ships in that port. He was not a voluminous writer; his chief publication was the course of lectures delivered to the students

in the hospital at Plymouth, which contain the result of his varied experience, and display an intimate knowledge of the surgical practice of his time. The College of Surgeons, England, is indebted to him for a valuable collection of preparations, in which are numerous specimens of injuries and diseases of the bones. He devoted himself with great diligence to the duties of his profession, and gained for himself a name and a large circle of friends among the noblity, with whom he was on terms of close intimacy to the time of his death.

MEDICAL TRIAL.

COURT OF QUEEN'S BENCH, WESTMINSTER, JUNE 26TH.

(Sittings at Nisi Prius, before the Lord Chief Justice Cockburn and a Special Jury.)

BONNEY *v.* SMITH.

MR. Coleridge, Q.C., and Mr. H. Matthews were counsel for the plaintiff; Mr. Serjeant Robinson and Mr. Inderwick were counsel for the defendant.

This was an action of slander. The plaintiff is a physician practising at Horsleydown, and the defendant is a surgeon practising at St. Mary's Cray. In May, 1866, the plaintiff gave evidence at a trial before Mr. Baron Channell in the Court of Exchequer, in which Mr. Rudman sued Mr. Armstrong, a surgeon, for negligence and want of skill in the treatment of Rudman's daughter. The plaintiff gave evidence against Mr. Armstrong, but the jury found a verdict in his favour. At a meeting of the Tunbridge-wells branch of the Medical Association, Mr. Smith, the defendant in this action, spoke of the unprofessional conduct of Dr. Bonney in giving evidence against a brother practitioner, and stated charges which he intended to make against Dr. Bonney before the council of the Association. The speech was reported in the *Journal* of the Association, and this action was the result. Dr. Bonney was not a member of the Branch Association, and could not, therefore, attend to rebut the charges, but he sent a reply to the speech in the form of a letter, which was inserted in the same paper.

The defence was that the defendant had no ill-feeling towards the plaintiff, but, as the secretary of the Association had read a report in which Rudman's case and Dr. Bonney's evidence were referred to, he was anxious that the members should know exactly what were the charges which he intended to bring before the council. Upon this ground it was submitted that the statement was privileged.

The LORD CHIEF JUSTICE held that it was not privileged, but said he would reserve leave for the defendant to move.

The jury interposed to ask whether they should have to determine the question whether the defendant was justified in making the statement, and being answered in the affirmative, said they were all agreed on that point.

The CHIEF JUSTICE said they must hear counsel unless they waived their right to address them.

A conference then took place and a juror was withdrawn.

The LORD CHIEF JUSTICE said he thought that was the best course to pursue, because although the plaintiff might have been entitled to a verdict as to the part which was not justified, it was doubtful after the intimation of the jury whether they would have given sufficient damages to carry costs.

THE "PALL MALL GAZETTE" TESTIMONIAL.

ON Wednesday last a large and influential meeting of the profession was held at the house of Mr. Hills, in Queen Anne-street, on the occasion of the presentation of a testimonial to Mr. George Smith, the proprietor of the *Pall Mall Gazette*. Sir Thos. Watson, Bart., presided, and many of the leading practitioners of the metropolis were present. The chairman briefly stated the objects of the meeting.

Dr. BURROWS, in presenting the testimonial to Mr. Smith, stated that he did so as the representative of the subscribers, both present and absent. It was a testimonial on the part of the members of the medical profession to the proprietor of the *Pall Mall Gazette*, for his able, fearless, disinterested, and benevolent efforts in a great public cause. Dr. Burrows proceeded to show that it was of the utmost consequence that the public should be able to discriminate between the truly scientific practitioner of medicine, and he who rested his claims to support on self-laudation and advertising, and on the presumed possession of superior knowledge in the treatment of disease. The *Pall Mall Gazette* had, at considerable expense, and with great boldness, stood up in defence of the legitimate practitioner, and had thus earned the respect and gratitude of the medical profession.

In returning thanks, Mr. SMITH spoke of the high gratification he experienced in receiving so splendid a testimonal from so large a number of the members of a liberal and learned profession. He proceeded to say that in the first instance, Dr. Hunter was quite unknown to him and the editor of the *Pall Mall Gazette*. He had never seen him until the day of the trial. He had taken up the matter entirely on public grounds. Originally the question was discussed without reference to the medical profession, but solely in the interests of the public and as an act of duty. But when the action was commenced against the *Gazette* the members of the profession came forward to his support, and acted most generously and effectively in the cause of truth and justice. Mr. Smith concluded an able address by expressing his thanks to the secretary, treasurer, and subscribers to the testimonial, and especially to the chairman of the day and to Dr. Burrows.

Votes of thanks were afterwards proposed and carried unanimously to those who had taken a prominent part in promoting the testimonal, and more especially to Mr. Hills, in whose house the proposal of the testimonial originated and in whose house it was presented.

Parliamentary Intelligence.

HOUSE OF COMMONS.—JUNE 21ST.

EXEMPTION FROM RATING.

IN reply to questions by Mr. J. A. SMITH and Mr. BAINES,

Mr. G. HARDY said, in the present state of public business it would be impossible to introduce a measure to exempt hospitals, infirmaries, and certain schools from the payment of poor rates. The matter, however, should receive his most earnest consideration.

THE IMPORTATION OF CATTLE.

Mr. AYRTON called attention to the order of the Privy Council of the 28th of May, 1867, respecting the importation of cattle, with the view of eliciting information on the subject from the Vice-President of the Committee of Council.

Mr. CRAWFORD thought this a matter which required the anxious consideration of the Government.

Lord R. MONTAGUE justified the order, the object of which was to give facilities for ascertaining whether animals were infected or not.

Major JERVIS regarded the order as one of the most absurd ever issued.

Mr. AYRTON withdrew the amendment.

JUNE 24TH.

The Vaccination Bill as amended was considered and ordered for third reading.

JUNE 25TH.

BROWN'S CHARITY BILL.

The Duke of MARLBOROUGH, in moving the second reading of this Bill, explained that its object was to alter in some respects the nature of a bequest made by Mr. Thomas Brown some years ago to the London University, for the purpose of founding a sanitary animal institution.

The Earl of Rosse, the Bishop of Down, Lord Cairns, Lord Talbot of Malahide, and the Earl of Powis opposed the measure.

Earl GRANVILLE supported the Bill, and said that the London University had already accepted the trust, and that the only object was to make the bequest as useful as possible.

On a division the Bill was thrown out by a majority of 48 to 16.

Correspondence.

THE ABUSE OF MEDICAL RELIEF TICKETS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—If any thing could show the necessity of an amended Medical Charities Act, particularly with regard to the shameful abuse of giving tickets for relief to persons in

good circumstances, I shall give you two instances of this—one Dispensary day's occurrences :—

1. The liveried coachman of a titled personage presented a ticket for medical relief *signed by his employer* (who is a member of the Committee of Management as a ratepayer). As the man was really very ill he was, of course, an object for professional consideration, and was accordingly attended to.

2. Was a wonderfully dressed *young lady*, silk coat and dress to match, and bonnet with a perfect parterre of flowers adorning it, and veil to cover her blushes, presented another ticket from a *guardian of the poor* for dispensary relief also. It appeared that this *poor patient* was a late arrival from the land of stars and stripes; and, although she had acquired the genteel accent of Boston, she had not added to the accomplishment by imitating the independent spirit of her adopted country.

You may imagine, from this narrative of one day's proceedings, to what a grievous extent this shameful abuse has attained, and what little hope there can be of amendment by leaving these matters to the discretion of interested individuals.—I am, dear sir, yours most truly,

A Dispensary Medical Officer.

THE ICE-BAG.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—Seeing your remarks upon the use of the "ice-bag" in sea-sickness, it occurs to me to enquire whether the same application is likely to be equally efficacious in the sickness attending a bilious attack? If so, it would be, indeed, a boon to thousands of sufferers.—I am, sir, yours obediently,

Pro Bono Publico.

Medical News.

Royal College of Physicians, of London.—The following officers were elected on June, 25, 1867:—

Censors—Henry Bence Jones, M.D.; Thomas Bevill Peacock, M.D.; William Wegg, M.D.; Richard Quain, M.D. *Treasurer*—William Emmanuel Page, M.D. *Registrar*—Henry Alfred Pitman, M.D. *Librarian*—William Munk, M.D. *Member of Council*—William Munk, M.D. *Examiners*—Anatomy and Physiology, John William Ogle, M.D., and Samuel Wilks, M.D.; Chemistry, Materia Medica, and Practical Pharmacy, Andrew Whyte Barclay, M.D., and William Marcet, M.D.; Principles and Practice of Medicine, Frederic John Farre, M.D., and Edmund Lloyd Birkett, M.D.; Midwifery and the Diseases peculiar to Women, Charles Blakely Brown, M.D., and Henry Oldham, M.D.; Principles and Practice of Surgery, George David Pollock, Esq., F.R.C.S. and John Birkett, F.R.C.S. *Curators of the Museum*—William Emmanuel Page M.D.; George Hamilton Roe, M.D.; William Wegg, M.D.; and Francis Sibson, M.D.

Queen's University in Ireland.—At a Meeting of the Queen's University, held in Dublin Castle, on Thursday, June 20, the following degrees were conferred:—

The Degree of Doctor in Medicine upon Mark Edward Anthony, Q.C., Cork; John Barry, Q.C., Cork; William Fuller Bennett, Q.C., Cork; John Walton Browne, B.A., Q.C., Belfast; Robert de la Cour Corbett, Q.C., Cork; Edmund Maurice D. FitzGerald, Q.C., Cork; James Frazer, Q.C., Belfast; Matthew Moriarty Gallwey, Q.C., Cork; Michael Upington Greany, Q.C., Cork; Thomas Kingston, Q.C., Cork: Frederick Lyons, Q.C., Cork; William Henry Macnamara, Q.C., Cork; Patrick Richard Martin, Q.C., Cork; Thomas Henry Sandiford, B.A., Q.C., Cork; Rosslewin Morgan, Q.C., Cork.

And the Degree of Master in Surgery upon

William Fuller Bennett, Q.C., Cork; Robert de la Cour Corbett, Q.C., Cork; Edmund Maurice D. Fitzgerald, Q.C., Cork; James Frazer, Q.C., Belfast; Matthew Moriarty Gallwey, Q.C., Cork; William Beech Johnston, M.D., Q.C., Cork; James Leatham, M.D., Q.C., Belfast; Frederick Lyons, Q.C., Cork, Thomas Henry Sandiford, Q.C., Cork.

Trinity College, Dublin—School of Physic.—Examination for the Degree of M.B.—Maximinum number of Marks, 100:—

Yeo, 86; Helm, Dubley, 79; Dobson, 77; Cotter, 75; Henry, 73 Owen, 72; Curran, 61½; Watson, Maunsell, 66; Pollock, 65½; Jago Popham, 62½; Goode, M'Dowell, Blenkinsop, 61½; Reynolds, 61; Paxton, 58½; and Duke, 58.

Examination for the Degree of Ch.M.

Yeo, 76: Jago, 58; Cotter, 56; Popham, 53; Pollock, 48; and Reynolds, 34.

List of Entries in the Register of the Branch Medical Council (Ireland) for the month of June, 1867:—

Wm. McConaghy, Rhymney, Tredegar, Monmouthshire, L.R.C.S.I., 1867.

Mathew Fletcher Ryan, 17, Vicenage-park, Belfast, L.R.C.S.Edin., 1867.

John Gubbins Rahilly, Charleville, Co. Cork, L.R.C.S.I., 1864; L. Apoth. H., Dubl., 1865.

James Meehan, Limerick, L.R.C.P.Edin., 1866; L.R.C.S.Edin., 1866.

Malachy Joseph Kilgarriff, 47, Harrington-street, Dublin, L.R.C.S.I., 1865; L., 1866; and L. Midwif., 1866; K.Q.C.P.I.

Joseph Patrick McDermott, Riversdale, Dundrum, Co. Dublin, L.R.C.S.I., 1867; L., 1867; and L. Midwif., 1867; K.Q.C.P.I.

John Shaw, 3z, Blackhall-street, Dublin, L. Apoth. H., Dubl., 1828.

Solomon Kellett, Virginia, Co. Cavan, L.R.C.S.I, 1866; L., 1867; and L. Midwif., 1867; K.Q.C.P I.

Geo. Wm. Owens, 25, Kildare-street, Dublin, L.R.C.S.I., 1866; L.K.Q.C.P.I., 1867.

Medical Officers of the Guards.—The charge of the Guardsmen in the House of Commons last year on behalf of their Medical officers, although not immediately successful, has been followed by a siege operation which has carried the War Office. The ground of complaint, it will be remembered, was a proposal to change the immemorial system of regimental promotion in the Guards on the strength of a "submission paper," which was signed in 1860, but not produced till 1866, and which was to have retrospective action. General Peel stoutly maintained that the business of the Medical officers was to obey orders and submit to their lawful governors. And he protested against the "House of Commons governing the army." In the end, however, the Duke of Cambridge and Sir John Pakington have now conceded what obvious justice demanded, and what might have been granted at first with a much better grace. Officers affected by the retrospective action of the warrant will be promoted within the regiment specially in their turns, and will thus be in great measure (but not wholly) indemnified. Not wholly, for the new *régime* will bring junior men in the regiment into senior positions over their heads, and prevent their reaching the higher grades within the time assigned by the service regulations. Thus one or more of the present Assistant-Surgeons can never become Surgeons-Major in their regiments, who otherwise would have done so.—*Pall Mall Gazette.*

A numerously-attended and influential meeting of friends and pupils of the late Professor Goodsir was held in the Hall of the Royal College of Surgeons of Edinburgh—the President, Dr. Dunsmure, in the chair—when the following resolutions were adopted:—1. That this meeting, deploring the loss which science has sustained by the loss of Professor Goodsir, resolves that steps be taken to form a lasting memorial of his distinguished career as an original investigator and teacher of anatomy and physiology. 2. That the most appropriate manner of commemorating Professor Goodsir's services as an investigator and teacher is the establishment in the University of Edinburgh of a Fellowship in Anatomy and Physiology, to be called the "Goodsir Fellowship." A committee was appointed, with power to add to their number, to collect subscriptions for the above purposes, to frame regulations for the Fellowship, and to report to a future meeting of subscribers. The Edinburgh Executive Committee includes the following names:—Principal Sir David Brewster, chairman; Sir George Harvey, President, Royal Scottish Academy; Sir James Y. Simpson, Bart.; Dr. Burt, Vice-President, Royal College of Physicians; Professor Balfour, Professor Christison, Dr. John Chiene, Dr. Dunsmure, President, Royal College of Surgeons; Dr. Matthews Duncan, Dr. Handyside, Professor Maclagan, John Muir, LL.D.; Dr. Lyon Playfair, C.B.; Dr. Smith, President, Royal College of Physicians; Professor Syme, Dr. Sanders, David Smith, Esq.; Professor Turner, Dr. Andrew Wood. Honorary secretary—Dr. Craig Maclagan, 5, Coates-crescent; honorary treasurer—Dr. Joseph Bell, 5, Castle-terrace. Professor Gairdner, Professor Lister, Professor Young, Glasgow; Dr. J. Adamson, St. Andrew's; Dr. Aitken, Inverness; Dr. Borthwick, Dumfries; Dr. Greig, Dundee; Dr. Johnson, Stirling; Dr. Mills, Thurso; Dr. Stirling, Perth.

The succession of the late Dr. Jobert de Lamballe has just been settled. The portion falling to each of his five heirs is £22,400, or £112,000 in all. "A handsome fortune," says *Calignani*, "when the fact is remembered that the illustrious surgeon came to Paris a poor lad."

Lithotrity.—The *France Médicale* of the 22nd inst. (June), contains a letter from an old and well-known lithotritist, M. Guillon (the same who brought an action against the Academy of Medicine of Paris for not awarding him the prize for improvements in the treatment of urinary diseases), in which he strives to prove that "a large stone can be broken up and reduced to sand by *immediate* crushing, without requiring perforation." M. Guillon obtains this result by his lever lithotrite, which he places high above the lithoclast and three-valve lithotrite of Civiale.

A TRAP TO CATCH SUNBEAMS.—In the optical room of the Conservatoire des Arts et Metiers at Paris, near a window, is an unpretending frame, containing half-a-dozen test tubes filled with powders, bearing a written descriptive label by M. Becquerel. Should any one pause before this object he need not be surprised if an attendant politely steps forward and closes the window-shutter, for darkness is required to reveal the beauties of the apparatus. The powders then exhibit in a most striking manner the phenomenon of phosphorescence, each shining winh a different coloured light. A similar series of powders has been arranged for sale in a neat little box, and has been brought under our notice by Messrs. Harvey and Reynolds, of Leeds. It is called by its French makers the "Phosphoroscope," though this name has been applied to a very different instrument; but as a scientific toy it is likely to become known in England as "A Trap to catch Sunbeams." Most of the powders are sulphides, and the brightest emanation is, probably, from the tube containing sulphide of barium. The phosphorescence may be induced by exposure to daylight for a few seconds, or to the light of a piece of magnesium wire.—*Laboratory.*

THE CATTLE PLAGUE IN GERMANY.—M. Bouley, member of the Academy of Medicine of Paris, was recently sent to Germany, by the Minister of Commerce, to report upon the alleged new outbreak. M. Bouley, who was accompanied by M. Imlin, an eminent veterinary surgeon of Strasburg, found that the information had been much exaggerated. In the Duchy of Baden, Frankfort, Hesse Hanau, and Hesse Cassel there was not a trace of the plague. In the Saxon Duchies and at Meiningen the Prussian Government were extremely severe: fourteen battalions of troops had been sent to the invaded districts, and a sanitary committee appointed to prevent the spread of the disease. Military occupation and cordons were quickly established, and, in one locality alone, more than 100 head of cattle were sacrificed. Precautionary measures were carried so far in Bavaria, that all travellers entering the country were placed in apparatuses to undergo chlorine fumigations. M. Bouley considers that the German authorities act with so much vigour that France has no cause to feel apprehension; he has, therefore, advised the Minister of Commerce to suspend the restrictions lately imposed on the entrance of cattle from Germany into the French empire.

NOTICES TO CORRESPONDENTS.

Communications to the London Editor should be addressed to 20, King William-street, Strand; to the Edinburgh Editor, at Maclachlan. and Stewart's, South Bridge; and to the Dublin Editor, at 3, Lincoln-place.

All Contributions are attentively considered, and unaccepted MSS. are returned on receipt of stamps for postage; but the Editors cannot be responsible for any accidental loss, nor can MSS. or replies be delivered on personal application.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

MEDICAL APPOINTMENTS.

ATKINSON, J. P., M.D., has been appointed Medical Officer and Public Vaccinator for the Bampton No. 2 District of the Whitney Union, Oxfordshire, vice G. B. Prickett, M.R.C S.E., deceased.

BADER, Dr. C., has been reappointed Curator at the Royal London Opthalmic Hospital.

BENNETT, H., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Ambergwessin District of the Builth Union, Brecknockshire, vice T. Blumenthal, M.D., resigned.

BRAMLEY, L., F.R.C.S.E., has been appointed a Vice-President of the newly formed Halifax Medical Association.

COATHUPE, E. W., M.R.C.S., has been appointed Surgeon to the Tredegar Iron Works, Monmouth, vice C. A. Homfray, M.R.C.S., resigned.

DAVIES, O., L.R.C.P.Ed., has been appointed Medical Officer for the Kingston District of the Portsea Island Union, vice J. F. Pritchard, M.R.C.S.E., resigned.

DOBLES, Mr. W. S., has been appointed Dispenser to the Hereford General Infirmary, vice Mr. G. Bullock, resigned.

DOLAN, T. M., L.R.C.P.Ed., has been appointed Secretary of the Halifax Medical Association.

GARLICK, J. W., M.D., has been appointed President of the Halifax Medical Association

JONES, J., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Builth District of the Builth Union, vice Thomas Jones, M.R.C.S.E., resigned.

LYNCH, A. H. F., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Innfield Dispensary District of the Trim Union, vice D. M. Ferguson, M.D., resigned.

MUIR, Dr., has been appointed Medical Officer for the Wombwell District of the Barnsley Union, Yorkshire, for one year.

NEWTON, J. L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Isleham or No. 9 District of the Newmarket Union, vice T. F Fernandez, M.D., who resigned upon receiving a similar appointment in the Ross Union.

RICKARDS, W., M.D., has been appointed a Junior Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.

RIDDELL, J., L.R.C.P.D.Ed., has been appointed Medical Officer to the Workhouse and Fever Hospital of the Cootehill Union, Co. Cavan, vice P. H. Horan, L.R.C.P.Ed., resigned.

ROE, G. H., M.D., has been appointed one of the Consulting Physicians to the Hospital for Consumption and Diseases of the Chest, Brompton, on resigning as Physician.

SMITH, S., M.R.C.S.E, has been appointed a Vice-President of the Halifax Medical Association.

TAIT, R. L., L.R.C.P.Ed., has been appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary, vice W. J. Sykes, M.B., resigned.

VACHER, F., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant House-Surgeon to the Birkenhead Borough Hospital.

WHATELY, G. F., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Berkhampstead District and the Workhouse of the Berkhampstead Union, vice T. Whately, M.R.C.S.E., deceased.

WILLING, G. B. F., L.R.C.P.Ed., has been appointed Honorary Assistant-Surgeon to the 7th Essex Rifle Volunteers, vice J. W. Oswald, L.R.C.P.Ed., resigned.

MEDICAL VACANCIES.

Lock Hospital—Surgeon.
Metropolitan Free Hospital—Assistant-Physician.
St. Mary's Hospital, Paddington—Assistant-Physician.
St. Olave's Union, Southwark—Medical Officer.

POOR-LAW MEDICAL VACANCIES.

Shepton Mallet Union.—Fourth district; area 9595; population 2701; salary, £65 per annum.
Torrington Union.—Shebbear District; area 10,834; population 1893; salary, £25, 13s.

Births, Marriages, and Deaths.

Announcements are inserted without charge, and must in all cases be authenticated with the signature of the sender.

BIRTHS.

CURTIS.—On the 21st ult., at Staines, the wife of A. Curtis, M.R.C.S.E., of a son.

EVANS.—On the 20th ult., at Dyffryn-Ceri, Newcastle Emlyn, the wife of Thos. Evans, M.R.C.S. and L.S.A., of a son and heir.

GWYNN.—On the 20th ult., at 5, Belgrave-terrace, Upper Holloway, the wife E. Gwynn, M.D., of a daughter.

HUGHES.—On the 22nd ult., at Downs-road, Clapton, the wife of H. W. Hughes, M.R.C.S.E., of a daughter.

LEACHMAN.—On the 21st ult., at Petersfield, Hants, the wife of A. W. Leachman, M.D., of a daughter.

WHITE.—On the 21st ult., at Mestyn-road, Brixton, the wife of Dr. S. White, of a daughter.

BLACK.—On the 25th ult., at Cocksburnspath, the wife of James Black, surgeon, of a son.

WHITE.—On the 14th ult., at Great Wellington-street, Paisely-road, Glasgow, the wife of J. White, M.D., of a son.

HINDE.—On the 14th ult., at Rathgar, the wife of Dr. B. Hinde, Staff-Surgeon Army, of a son.

GAMBIER.—On the 17th ult., at Grove-street, Regent's-park, the wife of Thos. Gambier, M.R.C.S.E., of a son.

HOLT.—On the 22nd ult., at Petersfield, Hants, the wife of Wm. Holt, M.R.C.S.E., L.S.A., of a daughter.

MARRIAGES.

BOURNES—BURGESS.—On the 5th ult., at the parish church of Monkstown, County Dublin, William H. Bournes, M.D., M.R.C.S., of Ballycastle, County Mayo, to Lizzie Anna, eldest daughter of Thomas Burgess, Esq., Royal-terrace, Kingstown, County Dublin.

GRIBBON—ALLAN.—On May 23, at St. Andrew's Church, Montreal, Canada, G. C. Gribbon, M.B., Assistant-Surgeon 1st Battalion 25th Regiment, to Lizzie, eldest daughter of H. Allan, Esq., Ravenscraig, Montreal.

HOOPER—DALKEN.—On May 4, at the Cathedral, Quebec, A. Hooper, Surgeon, H.M. 30th Regiment, to Julia Harrison, second daughter of H. S. Dalkin, Esq., of Quebec.

MEAD—PALMER.—On the 20th ult., at St. Mary's, Warwick, W. T. Harvey Mead, M.R.C.S.E., &c., of South Hackney, Middlesex, to Selina Lousia, third daughter of J. Palmer, Esq., The Square, Warwick. No cards.

MUNRO—BELLAS.—On the 18th ult., at Bongate, J. Munro, M.D., of Barnard Castle, to Mary, daughter of the Rev. T. Bellas, M.A., Vicar of the Parish of St. Michael, Appleby. No cards.

DEATHS.

PHIPPS.—On the 20th ult., at 2, Belle Veu-place, Cheltenham, J. G. Phipps, M.D., aged 49.

WARD.—On the 20th ult., at East-hill-house, Epsom, Joseph Ward, M.R.C.S.E., aged 67.

JAMIESON.—On the 17th ult., at Clifton-terrace, Edinburgh, James Jamieson, M.D., aged 78.

LYON.—On the 19th ult., at Wentworth-place, John Briant Lyon, L.S.A., aged 56. Much regretted.

NCE.—On the 21st ult., John Ince, M.D., of Chester-square, London.

Original Communications.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. I.—PREFATORY OBSERVATIONS.

I AM desirous that these papers should be preceded by some understanding with those who may honour them with a perusal, as to what I have chiefly in view, and the somewhat limited means at my disposal for the accomplishment of it. I shall thus avoid leading them to expect more than I presume to offer, or to charge me with a greater responsibility than I am willing to incur.

There is reason to believe that the present state of medical science is not satisfactory, either to the public or the profession ; and that this feeling is shared at least by many of the most studious, the most thinking, and most discerning of both classes of the community.

If this be so, there must, one would think, be some good in the unreserved communication of our observations and our experience, and conclusions which may have been deduced therefrom. In doing this, we should claim for ourselves, and concede to others, the privilege of saying what is really thought on all subjects to which they have given attention ; and not only so, but we should put forth our conclusions in a way which shall not be uncourteous, or inconsiderate of the opinions or feelings of others.

As it appears to me, the causes of the present state of medical science are not difficult to explain. The chain, to be sure, is composed of a variety of links, the relation of which to science, of any kind, were they isolated, would be difficult to discover. This, however, is, for our present purpose, unimportant. The main fact is, that they all culminate in one great cause, which is—"That medical science is not cultivated in a sufficiently strict manner."*

There is no branch of knowledge that I am aware of, which has made any material progress, without regard to the ordinary rules of induction or collecting the facts, and the careful application of ordinary rules of logic in deducing its conclusions. I am sorry to observe that medical researches are too commonly conducted without any very strict attention to either.

We have only to read almost any periodical, to discover some contribution, on which conclusions are drawn from premises, which do not justify such conclusions, but in which there is so general a neglect of anything approaching logical accuracy, as to be, so far as I have observed, unparalleled in any other science whatever.

Investigations have seldom included all the facts having relations to the subject. The attention has usually been directed to those which were more salient, or obvious to the senses, and not extended so as to comprehend what other subjects have in common, the *ab universis*, so much insisted on by Lord Bacon.

Researches thus conducted appear to me to have as little chance of developing great truths in nature as would the summing up of a judge to instruct a jury, who should restrict his observations to a portion only of the evidence before him.

But if this analogy be imperfect, it is only so in that in medical matters—the *hiatus* of imperfect evidence has too frequently been supplied by not very ingenious conjecture.

Had anyone time, and freedom from preconceived opinions, it does not appear at all impossible to inaugurate a better system, but in most countries, and perhaps now emphatically in England, time and money are convertible terms. The sale of really scientific works does not enable a man to do much, unless he has a more public arena, or more abundant means than have fallen to my lot, or unless he publishes at an expense which may possibly be at the sacrifice of paramount duties. These, and similar considerations, have prevented me from making more attempts than I have done. I regret this because I have received in this country, from the Continent, and, in a very special sense, from America, abundant encouragement to sustain the hope that I had begun in the right path. The details of this encouragement it would be irrelevant to intrude on the reader. Many have said, however—if you cannot carry out your original plan, cannot you give us such a digest of your principles as should enable anyone desirous of doing so, and with more time and opportunity than yourself, to follow in the same path—test your practical precepts, and, if encouraged, cultivate your views, so as to render them more complete.

This seemed reasonable, and I shall endeavour to do it, so far as a careful sketch will enable me in these papers. No doubt they will not afford the opportunity of *demonstrating* what I teach, but they may direct those who are desirous of understanding my views ; and, what I am most desirous of, protect those views from that kind of misrepresentation too common with a certain class of readers who are seldom induced to think seriously on any thing which does not come from some source with which they have been accustomed to associate the idea of "authority."

The papers will necessarily be more or less of a fragmentary character. In a digest it must be to principles that I chiefly direct attention. Then, on practical matters, I write only on what I have myself seen at the bedside, and from these I detach anything which may be too trite to delay the time of the reader.

I am indifferent as to whether anything regarded as new be given to myself or others ; but I am quite aware that some of my conclusions may be, if not startling to the serious student, still opposed to prevailing conventionalisms. I care not how these conclusions may be opposed ; I only desire an examination of the premises on which they rest.

I have lived to see many propositions emanating from myself many years ago, and, negatived by the highest authorities, become, so far as my inquiries have gone, universally adopted.

This is the common lot of most substantial improvements, and when at last they are adopted, it not unfrequently happens that some happy man comes in and engrosses the merit and the harvest of discovery, whilst the pioneer is forgotten.

Differences of opinion, however, instead of exciting uncourteous feelings, would be much more sensibly and generously regarded when viewed as necessary to the development of truth. Scarcely any two men look at a subject from precisely the same point of view ; no man sees the whole at once, but the various phases involved in the different views often, in combination, give the subject that integral form to future investigators, which no individual may have had the good fortune or the ability to discover.

In the principles which I shall endeavour to sketch, however unassailable the conclusions arrived at may be in the abstract, the value of them to me is the power they afford (as I think) of enlarging and improving what is understood by the "Constitutional treatment of disease," and not only of disease, strictly so-called, but the conduct of all other injuries, and the reparative processes they require. I would have everything taken for what it is worth at the bedside. It was there I learned all that I value in practice, and I have endeavoured to test the truth of it on every occasion which offered itself, by the most rigid application of which I am capable, of common sense, or which, in my view, is the same thing, inductive philosophy.

Experience and observation have not only matured my convictions of the soundness of the principles I would advocate, but they have furnished results which I believe to be at present attainable by no other means. I believe that the student will learn to deduce from them a practice

* In using the term medical, I use it in the most comprehensive sense—as including Anatomy, Physiology, Pathology, Therapeutics, Hygiene, &c.

conducted with clearer and better defined objects ; and that a further cultivation of those principles, will achieve successes beyond those at present attainable. I entertain the hope because such successes are suggested on grounds of legitimate hypothesis, which seems to require only further investigation.

I am much more anxious to excite thought than at once to carry conviction.

Before we can achieve anything beyond mere manipulatory art, or a system of mechanical routine, we must learn to hold many things as true, many things as possible, which at present a powerful conventionalism either holds in doubt or practically denies.

At present we conclude that that which we cannot cure is "incurable," which conceals a suppressed premise implying a presumption as to our knowledge, which has been falsified in every science properly cultivated. If this state of mind prevailed, where would have been the recent discoveries in science? Where would the state of organic chemistry have been if, because we could not form organic substances, we had concluded that it was impossible? or where the whole subject of spectral analysis, with the world of facts which it is opening to us, if we had told that nothing was to be done beyond what Newton had taught us? The fact is, we have not cultivated science as we ought. We are, I verily believe, professedly ignorant relatively as to what is "knowable," and on the principle of the *primus gradus sapientiæ est falsa intelligere*, so we shall remain unless we improve our modes, and enlarge the area of our observation.

In admitting that all success is the result of experience and observation, we must not content ourselves with using these terms as a sort of stereotyped platitude, but realise the definition of them as applied in the inductive sense, to the collection of facts, and to the rules of logic, in their application.

That these powers require method is true, yet that the only indispensable assistants are a circumspect patience, industry, and as our quasi spiritual guides, a fearless love of truth for its own sake, and as fearless a freedom from preconceived opinions. We shall, I think, have cause to believe that all examinations of material structure, however useful in many of the mechanical duties of our profession, will never *per se* develop the laws by which the various instruments or organs perform their functions in health, or resist or repair the injuries by accidents or disease. That for this end the most minute examination of parts is only useful as helping us to interpret the phenomena of the body in its integrity. But these phenomena must, as I believe, be noted with greater assiduity than we have as yet, perhaps, been wont to bestow on them. The sort of examination here intended would soon teach us the wide distinction between morbid anatomy and pathology ; morbid anatomy, however indispensable, is only one element, and that by no means the most important in that wide circle of circumspection, which forms the field cultivated by the philosophical pathologist.

Physiology must be cultivated on a much larger idea than that which bases its study so exclusively on anatomy. Anatomy deals only with the apparatus, the instruments in that laboratory in which the chemistry of life is carried on, whilst it in some degree restricts the investigations of the physiologist to what to most is its least attractive, to many its most repulsive, branch of studies. It seems constantly leading men to modes of research, in which both the facts and the conclusions are drawn too much from a *philosophy of sense*, against which we have been so wisely warned by Lord Bacon. Whilst arguments from analogy are brought forward, which, in many cases, are demonstratively unnecessary, and in others deficient in the requisition absolutely indispensable to analogical reasoning.

I will now only add, that I regard no authority but Nature. I have, in my investigations and experience, been guided by what I believe to have been the views of Hunter and Abernethy. My own studies have convinced me that, so far as they had gone, they were truthful interpreters of the facts which had been the subject of their observations, but they left many sequences unobserved from want of time and life for further labour. It is our business to go on in the path, and see by further study how far we can utilize what they left us, by deducing outgrowths of greater power and more definite application.

ON THE TREATMENT OF SYPHILIS BY TOPICAL REMEDIES AND TONICS.

COPY OF A LETTER FROM DR. OWRY TO DR. C. DRYSDALE.

ACCORDING to your request that I should give you a short sketch of my mode of treating universal syphilis, I will not omit to communicate that, without exception, it has been local and partly tonic for the last three or four years. In this way I have treated seventy or eighty patients of my private practice, and the result has proved satisfactory. In order to try this mode of treatment, I was led by my comprehension of "Syphilisation" and "Derivation," both of which methods I have had ample opportunity of studying for several years, and latterly as Assistant-Physician, for three or four years, at the University Hospital for venereal and cutaneous diseases, under the Doctors Hjort and Bœck. I held the opinion that the syphilitic phenomena vanished, not *propter*, but *post* these modes of treatment, which were always connected with topical remedies, and sometimes with tonics and specifics, such as iodide of potassium, and my opinion has proved the right one.

I hold both these treatments to be identical, without influence on the syphilitic organism, and this, although the patients sometimes have been syphilized with matter from hard sores, or secondary affections, especially of late years. My principal remedy is nitrate of silver, that is, used everywhere, where I have to do with ulcerating or secreting products, by whatsoever name they are called, or wheresoever seated. Besides this, patients ought to observe the greatest cleanliness, and take now and then a warm bath. Good and sufficient food, and life in the open air, is desirable.

If there exist any very strongly pronounced anæmia, which is frequently observed at the same time as, and as a consequence of, the syphilitic infection, I have, although not often, prescribed iron. The best tonic is, according to my idea, good diet, and a glass of wine or beer, whereas a too great use of spirits is detrimental. I have never used mercury, partly because I always heard from my principal teacher, Professor Bœck, that it was a "diabolical remedy," which, always on application, led to great risks anyhow, under whatsoever form, and in however small doses it was given ; but partly also, because I did not look upon mercury as necessary, as the phenomena always disappeared of themselves ; and, lastly, on account of my looking upon mercury as a dangerous remedy for the syphilitic economy itself. The most serious and most obstinate forms of the relapses of syphilis, I have always found after the use of mercury. When we reflect that what is intended by all treatment of syphilis, viz.—to bring the phenomena to disappear from the surface of the body, as we hitherto know of no remedy which entirely neutralizes the dyscrasia or infection ; and when we observe that this result is obtained as efficiently without active medication, but solely by expectation, there is no reasonable grounds for introducing into the system a matter with such dubious properties as mercury, although, on the other hand, it cannot be doubted that sometimes several forms of syphilitic exanthems disappear more quickly after it has been used.

But it is no specific at all, and this is more than sufficiently proved by the frequent relapses, and by the offspring of syphilitic women treated by mercury. From a rational point of view, it is also evident that no subacute infection (which might be compared to Virchow's Leucocythema) ought to be treated by a remedy which acts by deteriorating the organism, as is the case with mercury. In cases of syphilitic iritis and choroiditis, with their com-

plications, I have found no other remedy necessary than an early and persevering use of atropiæ and strict use of external antiphlogistics. In hereditary syphilis, I do not find anything else indicated more than a symptomatic and tonic treatment. At any rate, there is not much sense in treating this affection with lowering remedies, such as syphilisation, or mercury—the first affecting the feeble organisation by suppuration, the other, by introducing a new poison into the blood. In treating hereditary syphilis, it must be borne in mind how long since the epoch of the infection of the mother commenced ; the longer time since, the less serious is the infection of the offspring. In mentioning, especially the mother, it is on account of her being, so to speak, exclusively the cause of hereditary syphilis. Without being able to, or wishing to deny the possibility of the father's being the medium of carrying the infection through the semen—the more so as I believe I have observed one such instance—I must, nevertheless, point out, that this, undoubtedly, is a very rare occurrence in hereditary syphilis.

The so-called tertiary forms I treat like the secondary ones—rest, cleanliness, good food, and fresh air, as well as local therapeutics, according to the prescriptions of the surgeon, in cases of sores and tumours, without paying attention to the dyscrasia from which the phenomena are derived. I have found iodide of potassium to be of very little use, and do not, in consequence, look upon this remedy as any specific whatever. The best proof of its insufficiency lies in the numerous substitutes which, for many years, have been proposed and introduced into medicine, each one with claims as to greater effect than its predecessors, but all, in reality, of no consequence.

That gummous knots disappear without the interference of science, is daily observed in post-mortem examinations, when we meet with cicatrices and puckerings after gummata which never have been previously observed during lifetime, and which have never been subjected to any specific treatment. Nervous affections of hyperæsthesic character are better treated by subcutaneous injections of narcotic remedies, than by epispastics or specifics, and, in cases which have an anæsthetic character, electricity and inciting frictions are to be preferred ; as everybody knows, nothing is of any use where the nervous affection is determined by a degeneration of the original elements, or when a neoplasma has developed itself and proved persistent.

The principal element, then, in the treatment of syphilis is patience, and the first and most important point which therapeutists have to observe is to conquer the impatience of patients, whilst they themselves must endeavour to allay their own over activity and eagerness for writing prescriptions. The question of how long the expectant treatment lasts, is a fact of a subordinate character, but it must, on an average, be computed to last about 120 days, as is seen to be the case in all other methods employed. After whatever treatment we use, it is a well-known fact that relapses of a secondary nature usually appear both one and two years after infection. Tertiary forms I have never as yet observed in any of my patients treated in this way, but I do not doubt that they may appear. I adhere principally to the opinions of yourself, Syme, and other anti-mercurialists, with respect to the treatment of syphilis. I must repeat the challenge at the end of your book to colleagues, to try this method with patience and exactness, and must conclude by calling attention to the discussion of this subject which is at present taking place at the Societé de la Chirurgie at Paris, and which is brought forward by the warm spokesmen for this purpose, Messrs. Dolbeau and Deprez. W. Owry.

Christiania, Norway, 6th June, 1867.

A REMARKABLE CASE OF "PURPURIC FEVER,"

WHICH RECENTLY OCCURRED IN THE COUNTY OF CORK.

The following letter, received from Dr. Warren Crooke of Macroom, will best explain the case, of which he gives a particularly clear and concise account. It may be observed that in the report of the Medical Society, published in the Medical Press and Circular of the 5th June, will be found a letter from Dr. Crooke to me respecting a case which I published in the Medical Press and Circular of the 1st May. This has led that gentlemen to further favour me with the following important communication. I have suppressed all references in the MS. which might possibly be construed into a designation of the probable name and residence of the patient. T. W. Belcher.

"24th June, 1867.

"Dear Dr. Belcher,—I have read with much interest the discussion at the Medical Society of the College of Physicians, on the recent epidemic. I send you notes of a case which has excited much interest and surprise in this part of the country. It may, perhaps, strike you that medical aid should have been earlier obtained, but it would seem that this lady's illness did not, at first, alarm either herself or her family. I was sent for on the evening of June 1st, but being in a distant part of the country, was unable to visit until the morning following. She resided in a well ventilated house, in a particularly healthy district, in which no case of a similar character had been observed.—I am, dear Dr. Belcher, truly yours,

"Warren Crooke."

Mrs. ——, of ———, aged 40, was in excellent health on the 30th of May. It being Ascension day, she walked to a neighbouring church for morning service, and in the afternoon walked a mile to meet a lady who was coming to her for a visit. In the evening she complained of a feeling of illness, and of a pain in the left side of her neck.

31st May.—Came down to breakfast looking ill ; she had not slept owing to the pain in her neck, which she described to be confined to the left side under her ear ; the surface in this situation was observed to be of a livid colour, and was tender to the touch. The part was fomented with poppy stupe. She was very poorly during the day ; complained of heavy pains in different parts of her body. In the evening Miss —— observed a small pustule in the centre of the livid patch under her left ear. No general swelling existed in this situation.

The pustule was about three lines in diameter, and raised over the surface about two lines. Miss —— believed it contained matter, and pushed a needle into it, but nothing flowed from it, and the part was so exquisitely tender that Mrs. —— would not permit her to press it. After this she lay for some time on a sofa in the dining-room, and shortly complained of severe pain in her back. She became very restless ; could find no relief in any position; her neck was fomented with poppy stupe ; she had no appetite; was thirsty, and when she drank always felt nausea, but did not vomit.

1st June.—Was unable to get up; had passed a wretched night, tossing about from pain in the left side and nape of the neck, and in her back ; she got up at two o'clock, but presently went back to bed, when she had a fit of shivering, but did not get hot or sweat.

2nd June.—She passed a miserable night, suffering pain in her neck and back ; she slept a little occasionally.

At ten A.M., I visited her ; I could hear her moans from the hall, though she was in a distant room. Not having been prepared for any serious illness, I was shocked at her appearance; her countenance was collapsed; her eyes glassy ; she moaned with each expiration ; she told me the pain in her back (pointing to the lumbar region) was so desperate that she could not help moaning ; she also told me she had severe pain in the left side and back of her neck ; she lay on her right side, and said she could not move without increasing her pains; her pulse was 140, like a thread ; her respiration 35. My attention was directed to a livid patch on the left side of her neck under and behind the ear. The colour was deepest in the centre, where I could observe just a trace of the pustule. The lividity covered, perhaps, the space of a crown-piece, extending for an inch under the hair, and fading away on the scalp. It was rather tender to pressure. I at once decided she was hopelessly ill, and required a consultation. I en-

deavoured to support life with stimulants and nourishment. In the course of the day I met Dr. Gregg, of Cork; he joined me in pursuing the same treatment. In the evening she seemed to rally slightly ; we were both obliged to leave her, appointing to meet next morning. After twelve o'clock she got worse, and I was sent for. On arriving at four A.M. of 2nd June, I found she had died at 1·20 A.M. She had no convulsions; had rattles in her throat for a few minutes before death.

At nine o'clock A.M. I examined the surface of her body. Her skin, which was very fair, had assumed a leaden hue. There were no petechiæ or blotches. The livid patch on her neck was just a little darker than the surrounding skin. I did not after this see her body. As decomposition was rapidly setting in, I ordered that the funeral should take place within forty-eight hours. A very intelligent lady, who saw the body, just within that time, before the coffin was screwed down, informs me that the body was quite black, and I have no doubt of the fact. What caused the death of this lady in four days? Was it not a malignant fever alike to the disease which has existed in Dublin? The acute pain in the loins reminded me forcibly of that which so frequently attends bad cases of confluent small-pox. Was not the livid blotch and pustule on the neck a weak effort to direct a blood-poison to the surface? The case was novel to me and to Dr. Gregg.

No post-mortem examination could be obtained.

Hospital Report.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

SURGICAL RECORDS,

By WILLIAM STOKES, Jun.,

SURGEON TO THE HOSPITAL; LECTURER ON SURGERY, CARMICHAEL SCHOOL.

ULCERATION OF CARTILAGES OF KNEE-JOINT OF TWO YEARS STANDING; EXCISION OF THE KNEE-JOINT; UNFAVOURABLE TERMINATION OF THE CASE.

NOTWITHSTANDING the energetic and able advocacy for resection of the knee-joint in the Dublin school, the operation is one which all reflecting surgeons must admit to be still *sub judice*. We cannot shut our eyes to the fact that in many of the leading Continental schools of surgery the operation is in disfavour. In Berlin, for example, we see it entirely abandoned by the deservedly eminent Prussian surgeon, Professor Langenbeck, and in the Vienna and Paris school it is also held in disrepute. From Dr. Eben. Watson, formerly surgeon to the Royal Infirmary of Glasgow, we learn that of the eleven operations for excision of the knee-joint that have been performed there up to 1860, only four were successful, of the seven failures, "four died from the effects of the operation, three were submitted to amputation through the thigh, and one of them survived, so that of the eleven patients operated upon six died.* In a recent number also of THE MEDICAL PRESS AND CIRCULAR we were informed by Mr. Holmes Coote, that of the six cases of excision of the knee-joint, which were performed at St. Bartholomew's Hospital last year, three died, and in all cases it was performed at an age most favourable for convalescence and recovery—namely, between infancy and early adult life." In gun-shot wounds involving the knee-joint the results of excision have been still more unfortunate. Of the seven cases recorded prior to the recent American war, only two terminated successfully, and of the eleven cases in which complete excision of the knee-joint was performed during the late protracted war, as recorded in Circular No. 6, a report of the surgical experiences acquired there, and recently published by the American Government, only two were successful, and in one of these the author of the report, Surgeon-General Dr. Barnes, states that the success was "so extraordinary as to suggest some doubt as to its authenticity." We should not forget, however, how very difficult it must be during active military service to obtain the requisite hygienic and surgical resources necessary for the after treatment of such cases.

Notwithstanding these unfavourable statistics, the operating surgeon can always derive encouragement from the records of the cases, collected from various sources by Mr. Butcher, for he will find that of the ninety-one cases in these tables only twenty-five deaths are recorded, and of the remainder, twenty-four were "under treatment," and said to be recovering, and forty-two were "cured." In truth, one chief cause for the ill-success which now so often attends this operation is, I think, that surgeons have too often looked upon the procedure as an alternative for amputation, and very rarely, indeed, as one of expediency. In other words, it is too often deferred until even the propriety of amputation might properly be questioned.

The particulars connected with this case I am about very briefly to record, have suggested these preliminary remarks, for I cannot but think it more than probable, that had the operation been performed at an earlier period, when the vital powers of the patient were not brought to so low an ebb, the chances of bringing the case to a successful termination would have been largely increased.

Susan Hillas, æt. 23, was admitted into the Meath Hospital in last February, having been recommended to me, by my friend and colleague in the Carmichael School, Dr. R. Shaw. Her condition on admission into hospital was truly pitiable. There was great emaciation, an expression of long continued suffering, and much prostration from a continuance of sleepless nights, produced by the often repeated and violent starting pains, so characteristic of the disease, which were present both by day, on making the slightest movement, and also by night, when they occurred with a violence and frequency, which caused her often to scream, so painfully acute were they. The knee, which had been affected in this way for upwards of eighteen months, was not much swollen, being free from effusion, but over the inner side of the joint there was the peculiar elastic, Indian-rubber sort of sensation, which is so often present in articulations affected with much synovial thickening. The joint was strongly flexed, and any attempts to alter its position were wholly unavailing, owing to the extreme pain that they produced. There was no physical sign or symptom of any organic disease elsewhere to be found. Shortly after the patient's admission into hospital, I put her under the influence of chloroform, and extended the leg, and kept it in that position by an apparatus, which I made for the purpose, of Spark's prepared leather. In addition to this, I kept continually applied to the joint the belladonna liniment of the Pharmacopœia, and internally administered frequently opium and cicuta in large doses, during both day and night.

Under this treatment the patient appeared for some time to derive benefit, but it was not permanent, and after trying rest and the other treatment I have already alluded to, for more than two months, and not finding any improvement in the patient's general condition, I determined, should she accede, to have recourse to some operative interference. The patient promptly and positively refused to have an amputation performed, although I expressed my opinion that, owing to her very debilitated condition, I thought the chances of subsequent convalescence would be greater if she selected amputation, in preference to excision, of the knee-joint. To the latter procedure, however, she would only accede. Nor, I confess, was I at all despondent about bringing the case to a successful termination, for there were some features connected with it which, I thought, made the resection of the knee-joint a perfectly fitting and justifiable operation to have recourse to. Among others, her freedom from disease elsewhere, and above all, her youth. Resection, therefore, being agreed upon, the next important question for me to determine was, what line of incision I should adopt. As I was very anxious to pre-

* Glasgow Medical Journal, October, 1859.

serve the patella, should that bone and its cartilage be found healthy, I anxiously considered the propriety of performing the operation by the single longitudinal incision, one great advantage of which is, that the ligament of the patella and its attachment to the tibia can be preserved intact. This line of incision was formerly strongly advocated by Langenbeck and his pupils, and having frequently practised it on the dead subject, I can endorse all that has been said as regards the facility with which the operation can be performed by adopting this method.

It is performed in the following manner :—The limb should be extended, and an incision, commencing a little above the internal condyle, should be brought down on a line with the anterior edge of the internal lateral ligament, as far as the insertion of the sartorius. The knife should be carried down to the bone, the capsule of the joint divided on the inner side of the femur, and the patella then dislocated completely outwards. In this way, a complete view of the internal structures of the joint is obtained.

The crucial ligaments should then be divided, and the joint forcibly flexed, and the external lateral ligament divided. The remaining steps of the operation can be performed in the ordinary manner.

This method, however, has not been attended with as favourable results as the old H-shaped incision, and accordingly I determined to adopt this. It would have been quite useless (as I found on opening the joint) to attempt preserving the patella, for the bone, as well as the cartilage on its posterior surface, was extensively diseased.

During the operation, which, assisted by my colleagues Messrs. Porter, Collis, and Wharton, I performed on the first of last May, three vessels, two of considerable size, had to be secured, which I accomplished by acupressure, adopting the methods of quarter and half rotation, or first and second varieties of the fifth or Aberdeen method. The hæmorrhage was perfectly arrested by this. There was considerably more disease in the joint than I had anticipated. The synovial structures were pulpy, thickened and gelatinous, and there was extensive ulceration of cartilage. The case was, in truth, a typical example of ulcerative action in articular structures. This was especially well-marked over the inner condyle, the cartilage of which was much eroded, as was also the bone. The same condition was observed on the corresponding facet on the head of the tibia ; and, as was before mentioned, the cartilage on the posterior aspect of the patella, was extensively engaged. There was intense vascularity of all the structures of the joint.

After the operation was concluded, the limb was put up in the ordinary manner in Butcher's box, and a powerful anodyne administered at once.

3 P.M.—Found patient in a state of great excitement and hysteria. Heart's action fluttering, and very excited. Impossible to estimate accurately the rate of pulse. Complains of great starting in limb. Ordered an anodyne, with forty drops of Battley's sedative.

10·30 P.M.—Quieter ; excitement abated ; has had a little sleep ; feels drowsy ; does not complain of startings or pain.

May 2nd, 10 A.M.—Pulse 140 ; great gastric irritability ; vomits everything ; ordered iced soda-water, hydrocyanic acid and champagne.

9 P.M.—Has had another very severe fit of vomiting ; nothing remains on stomach ; pulse 150, weak and compressible ; appears to be sinking ; ordered a draught containing sol. mur. morphiæ, gtt. 35 ; acid hydrocyanici, dil. gtt. vi. ; brandy, ℥i., in two tablespoonfuls of iced soda-water ; and also a small blister to the pit of stomach.

3rd.—Great change for the better ; had some hours sleep ; countenance cheerful ; retching and vomiting ceased ; pulse 112 ; to continue the iced beef-tea and champagne in small quantities at a time.

4th.—Dressed the wound for the first time ; edge of anterior portion of flap united ; all going on well.

6th.—No return of gastric irritability ; pulse 120 ; tongue moist ; appetite good ; copious suppuration from the wound ; removed two of the points of suture ; transverse wound united completely.

It would be tedious to continue the daily report further. For upwards of a fortnight after the last report, notwithstanding the extremely hysterical and irritable temperament of the patient, everything appeared to promise well. The suppuration in the wound continued to diminish sensibly ; the appetite also improved, and the patient had better nights ; at this time I was most sanguine in believing that the case would be brought to a successful termination ; my colleagues were also of this opinion. At this stage, however, grave pulmonary symptoms manifested themselves—the pulse rose, and night perspirations, and other evidences of a hectical condition were developed.

On the 6th week the pulmonary symptoms, which exhibited all the usual phenomena of acute tuberculosis, became much aggravated, and it became evident that the end of the patient was rapidly approaching. Notwithstanding, however, her critical condition, the wound continued to improve up to the last week of her life ; but on this week, the seventh after the operation, she gradually sank, and died on the 15th of June.

In considering the features of this case, I cannot avoid coming to the conclusion, that had the operation been performed at an earlier period of the disease, before the patient's vital powers became undermined by long continued suffering, the result would have been probably very different, and I regret—and think it right to record that regret—that I did not perform the operation when the patient first came under my care at the end of last February. We should not wait until reaction becomes nothing more than an alternative for amputation. "Do not the very circumstances," observes Dr. Watson of Glasgow, "which demand the amputation, diminish the likelihood of success from excision ? Surely, then, the two operations ought not to be canvassed at the same time. If it is the time for amputation, then it is too late to attempt the salvation of the limb by excision ; and if the latter course is at all a desirable one, then ought we to pursue it before the patient's case has become well-nigh desperate. I believe it has been by acting too rigidly on the opinion that excision was a mere substitute for amputation, that we have had such poor success with our cases in Glasgow, and if I am not very much misinformed, surgeons elsewhere have not so acted, but have chosen cases for excision that were by no means *ready* for amputation. I think that we should do so too—that we should select patients who have some health and strength to work upon, as the subjects of this operation, and not those who are already sinking into the grave."

In concluding this brief record, I should be failing in duty were I to omit expressing my warm thanks to Messrs. Cooke, Locke, and Crosslé, our clinical assistants in the surgical wards of the hospital, for the care, and untiring zeal and energy they have shown, not only during the progress of the case I have just recorded, but in all those they have had under their care since they were appointed to the offices they now so worthily occupy.

Foreign Medical Literature.

INVESTIGATIONS RESPECTING ARTERIAL DILATATION AS A RESULT OF NERVOUS IRRITATION.

By Dr. CHRISTIAN LOVEN.

TRANSLATED FROM THE "HYGIEA" FOR NOVEMBER, 1866, P. 425.

By WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; EXAMINER IN MATERIA MEDICA AND MEDICAL JURISPRUDENCE IN THE QUEEN'S UNIVERSITY IN IRELAND.

(Continued from page 17.)

4.—*Remarks on the foregoing experiments.*

IRRITATION of a sensory nerve thus always gives rise to changes in the pulsation of the heart. Commonly the latter

becomes slower, and, moreover, dilatation or contraction of the bores of the arteries is produced. According to the experience of all investigators, it is beyond all doubt that the phenomena mentioned, exhibited by the muscles of the organs of circulation, are produced in a reflex mode. Likewise, according to my observations, we cannot entertain a doubt that relaxation in the muscular structure of the arteries cannot take place independently of a preceding stronger contraction of the same. According to the current physiological views, we must therefore say that sensory irritation is capable, by reflex action, both of elevating and depressing the tone of the vascular nerves. We have not, however, as yet arrived so far as to be able to predict in what cases sensory irritation shall have an augmenting or restricting influence upon the contraction. From my researches only thus much seems to follow, that the dilatation occurs much more locally than the contraction. Wherever irritation was established, an increase of the pressure of the blood always took place, which, as where the vagus was uninjured it was accompanied with retarded pulsation, could depend only on an increase of resistance in the channel of the circulation. The dilatation was at the same time confined, without exception, to the arteries whose course lay within the domain of the irritated nerve, or at least in the vicinity thereof. It has already been remarked above that irritation of the auricular nerve on one side, usually dilated only the arteries of the corresponding ear. However, the cases were not very rare in which also the ear of the opposite side became redder. Among many experiments, I have, moreover, once seen irritation of the infra-orbital nerve produce redness in the ear, and in the same animal an irritation of the central stump of the brachial plexus cause a weak but distinct relaxation of the auricular arteries. On the other hand, I have never seen the vessel-dilating influence of the lumbar or sacral plexus extend to the ear.

Upon this supposition, we cannot mistake, in the whole series of phenomena developed after irritation of a sensory nerve, the character of that conformity to an end which so surprisingly manifests itself in all reflex processes. In the great majority of cases it must have a favourable influence on the irritated part, that it should be traversed by a full and rapid stream of blood. Only thus can the injurious effects of greater differences of temperature, compression, &c., be neutralized. A current of blood thus locally altered must arise if the small arteries in the irritated part are dilated, while all the others are contracted; and a too considerable increase of the pressure of the blood is prevented, if, at the same time, the pulsation of the heart becomes slower.

The point in the nervous central parts, where the transition of reflex actions takes place, seems to lie, not in the spinal cord, but in the medulla oblongata. At least the experiments of von Bezold are in favour of this view, when, upon irritation of sensory nerves, he no longer observed any increase of the pressure of the blood, if he irritated a sensory spinal nerve, after the cervical medulla was divided. With this seat of the reflex focus, perhaps the exceptional position occupied by the vascular nerves in another respect also agrees. Van Deen was the first to show, that by irritation of a transverse section of the spinal cord, the nerves arising below the same never can be excited. To this it is well-known that the vascular nerves most decidedly form an exception—a circumstance which is perhaps connected with some different arrangement of these nerves in the spinal cord.

From von Bezold's experiments, we might further be inclined to conclude, that the reflex actions, which are attended with a diminution of the tone of the vascular nerves, are arranged in the medulla oblongata, and that those on the contrary, which are connected with an increased tone, occur first in the cerebrum; supposing that the augmentation of pressure observed in his first experiment should be attributed to a contraction of the vessel, and, on the other hand, the independent sinking of the pressure to relaxation of the vascular muscles. But to decide this question, continued experiments would be necessary as to the state of the vessel in each particular case.

If we try to penetrate still more deeply into the connection of the phenomena, we soon find ourselves surrounded by a number of alternatives incapable of solution. The fact, that by irritation of the same nerve trunk, at one time dilatation, and at another contraction of the vessel occurs, may be caused, however, by different kinds of fibres contained in the sensory or motor trunks, and by different localities and kinds of movements for the reflex apparatus. But as I am not in a position to decide which of these possibilities is the correct one, I shall not further sketch my ideas on the subject. We must for the present be satisfied with having established the fact, that the contraction and dilatation of the arteries do not stand to each other in the same relation as effort and exhaustion, or as the phases of an oscillation.

Recollecting the extreme importance which the process in question has for the pathological bearings of physiology, it is evident that zealous investigations upon the subject must continue to be made.

5.—*Dilatation of the branches of the arteria profunda penis through the influence of the nervi erigentes.*

The dilatation of the arteries of the penis in consequence of irritation of a peripheral nerve trunk, deserves our attention in a double point of view; on the one hand, for the results which occur in the organ traversed by the distended current of blood; but on the other, also, for general reasons.

With respect to the theory of vascular dilatation in general, it would, in the first place, be desirable to know whether the processes active in the dilatation can be explained in accordance with the principles of the contraction theory or not. If we endeavour to ascertain the means at our command for the decision of this question, they are certainly very limited, for there is, in fact, only one—namely, the demonstration of a nervous apparatus acting tonically, and situated between the dilating nerve and the muscles. From analogy with the heart, we believe ourselves justified in assuming the existence of such a tone-giving organ, if ganglionic cells are scattered in a nerve shortly before its peripheral termination.

In the salivary glands, in which it is well-known that Cl. Bernard discovered the dilating nerves, ganglia lie along the course of the nerve. All the phenomena in these organs with which we are acquainted, are sufficiently explained by the assumption that tone is imparted to the vessel partly from the brain through the sympathetic, and partly from the ganglia met with on the glandular nerves. If, now, the tone-giving action of the ganglia be annihilated by the dilating nerves (the facial, &c.), the vascular walls yield to the urgency of the pressure of the blood.

Some years later, Eckhard showed that from the sacral plexus two nerves proceed, by the irritation of which the current of blood through the penis is exceedingly promoted, and in fact, it would be difficult to find any point in the animal body which more markedly exhibits the acceleration of the circulation under the influence of nervous irritation. On the other hand, Eckhard has, in his remarkable investigation, left us in uncertainty as to the mechanism on which this phenomenon is founded, as he neither could demonstrate the dilatation of the arteries, nor discover any ganglia in the penis.

By close anatomical investigation of the penis in the dog, I have now succeeded in discovering numerous ganglionic groups along the course of the nervi erigentes, the description of which I shall here add:—

Of the nerves running along the membranous portion, only those found on the lateral and posterior (superior) surfaces belong to the nervi erigentes; irritation of the anterior does not produce erection, nor does their division hinder its occurrence. Both these effects are, on the contrary, produced by a corresponding interference with the nerves running on the superior and lateral surfaces of the mem-

branous portion. Now, these may, for the greater part, be traced to the nervi erigentes described by Eckhard, proceeding from the sacral plexus; through another portion they are in connection with the hypogastric plexus. The plan of the sub-division of the same, corresponds to the representation given by J. Müller* of the nerves in the corresponding part in man.

The lateral trunks run parallel to one another, and are for the most part isolated, merely the filaments lying nearest to the anterior (inferior) surface of the membranous part, uniting with the fibres of the nervus pudendus, which run from this nerve on the anterior side of the urethra towards the prostate. The lateral fasciculi can be traced as far as the point where the arteria profunda penis, on the side of the bulb of the urethra, resolves itself into its terminal branches, and there form, together with branches of the pudic nerve, an extremely dense network. From this some of the fibres penetrate with the vessel into the corpus cavernosum urethræ, others spread out in the walls of the artery of the bulb and its larger branches, where they can be followed into the muscular layer. The fibres resemble bundles of connective tissue, but are still stronger, undulating, and extremely pale, and consequently can be made visible only by acids, or by colouration with carmine.

The posterior bundles from both sides anastomose freely with one another, and form a plexus which lies directly on the muscular coat of the urethra; they soon cease to be traceable, inasmuch as they enter into the extremely dense connective tissue, copiously supplied with elastic filaments, found in the posterior part of the bulb, immediately in front of the musculus bulbo-cavernosus.

I have met with ganglia and ganglion-like formations in the following hitherto unknown situations:—1. On the posterior surface of the membranous portion of the urethra; they occur to within some few lines distance from the posterior boundary of the bulb, but are particularly abundant in the depression between the prostate and the urethra. The ganglionic cells lie either singly or united into groups; in form they are either ordinary ganglionic cells, with abundant, yellowish, granular protoplasm, or are of peculiar formation. 2. In the dense connective tissue in the posterior (superior) part of the bulb lie ganglionic cells with scanty, very pale, finely granular protoplasm, in larger or smaller groups or also singly among the nerve-filaments. 3. In the net-work formed by the lateral bundles of the nervi erigentes around the vessel on the side of the bulb, lie peculiar enlargements of the pale nervous fasciculi, which are filled with numerous nuclei, and a very pale, finely granular mass.

The vivisectional investigation of erection in the dog, to the results of which I now pass, loses, through the employment of curare, the repulsive character it would otherwise, in so high a degree, possess. We must, therefore, regard it as fortunate that all the phenomena exhibited by the circulation in the penis of a healthy animal, continue unchanged notwithstanding very intense poisoning.

A.—Of the changes in the penis, which accompany the acceleration of the circulation produced by irritating the nerves of erection.

The assumption that the normal contraction of the trabecular muscles of the penis, should be the cause of the rapidity of the circulation in that member being incapable of reaching its full development, has already been refuted by Eckhard. This he accomplished simply by cutting through the cavernous tissue in different places. If, after this was done, the nervi erigentes were at rest, the hæmorrhage on the cut surface was very moderate; but if these nerves were thereupon irritated on one or both sides, a strong current of blood issued from the divided caverns. As it is evident that the divided walls of the latter could not have made any resistance to the stream of blood, the increased hæmorrhage must be attributed to the direct influence of the nervi erigentes.

(To be continued.)

* Ueber die organischen Nerven der erectilen mannl. Geschlechtsorgane. Berlin. 1836. Tab. III.

ROYAL COLLEGE OF CHEMISTRY, LONDON.

JUNE 29TH, 1867.

SIR,—I have the honour to submit to you, in the following table, the results of the chemical examination of the waters supplied to the metropolis during the month of June:—

ANALYSIS OF THE METROPOLITAN WATERS FOR JUNE, 1867.

1 Companies.	2 Date and Place of Collection.	3 Total solid impurity in 100,000 parts.	4 Organic Carbon.	5 Nitrogen as Nitrates and Nitrites.	6 Ammonia.	7 Total Combined Nitrogen.	8 Previous Sewage Contamination (Estimated.)	9 Total Hardness.
THAMES.								
Chelsea ...	JUNE 1ST. Cab-rank, Horse Guards.	28·28	·261	·214	·004	·217	1158	20·3
W. Middlesex ...	JUNE 1ST. Cab-rank, Portland-road.	27·22	1·020	·218	·120	·421	2195	19·4
Southwark and Vauxhall ...	JUNE 14TH. Barclay's Brewery.	29·70	·231	·170	·002	·172	735	20·9
G. Junction ...	JUNE 24TH. Roy. Coll. Chem.	28·42	·265	·204	·004	·207	1085	20·9
Lambeth ...	JUNE 3RD. Cab-rank, Westminster-road.	28·18	·325	·220	·001	·229	1305	20·9
OTHER SOURCES.								
New River ...	JUNE 1ST. Haverstock-hill.	23·12	·217	·198	·001	·199	1005	16·3
Ditto Filtered through animal Charcoal ...	Ditto.	21·02	·071	·156	·004	·159	605	12·3
E. London ...	JUNE 21ST. Old Ford, Waterworks.	27·22	·237	·150	·002	·152	535	19·7
Kent ...	JUNE 13TH. Waterworks, Deptford.	39·04	·165	·320	·001	·321	2225	28·3
Loch Katrine ...	FEBRUARY. Glasgow.	3·28	·256	·031	·002	·041	0	0·3

For the purpose of comparison, I append also the results yielded by Lock Katrine water, as supplied to Glasgow, when submitted to the same analytical processes. The numbers in columns 3, 4, 5, 6, 7, 8, and 9, all relate to 100,000 parts of the waters. The table is to be read thus: 100,000 lbs. of Chelsea water collected on June 1st at the Horse Guards cab-rank contained 28·28 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·261 lbs. of carbon. This solid impurity also contained ·214 lbs. of nitrogen in the form of nitrates and nitrites, besides ·004 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·217 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 1158 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames or its tributaries, and partly in the

reservoirs, filters, and conduits of the Company, this sewage contamination had been entirely converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 20·3 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The above analytical results show that the water of the West Middlesex Company, drawn from the stand pipe at the cab-rank in Portland Road on the 1st inst. was contaminated with sewage (*present* sewage contamination); for, if the amount of nitrogen existing as nitrates, nitrites, and ammonia (·318 part) be deducted from the total combined nitrogen, there remains ·103 part, which must be *organic* nitrogen, equivalent to 1030 parts of average London sewage in 100,000 parts of the water, or rather more than one per cent. The water was turbid when drawn, and after standing for a few days emitted a very offensive odour, and became filled with white flocculent matter resembling that which gradually deposits from filtered sewage. A few days later this odour disappeared. In answer to my inquiries the engineer of the Company informs me that a breakage had occurred in one of the Company's mains in an adjoining street, and near a gully-hole. This fracture, which was repaired on the 3rd of June, soon after its discovery, happened to a main from which the water pressure was removed at night, and it is believed that, during this absence of pressure, sewage commingled with the contents of the main. It is gratifying to find this satisfactory reason for believing that the contaminated water was delivered to a small district only, and for a short time; but the accident supplies another item to the already long list of dangers attending an intermittent supply of water. On the *constant* system no sewage contamination arising from such a cause could occur. On taking a sample from the same source on the 7th inst. I found the water restored to the usual condition of normal Thames water.

The water of the Southwark Company was turbid when drawn from the main; and that of the East London Company very slightly so.—I have the honour to be, sir, your obedient servant, E. Frankland.

The Registrar-General, &c., &c.

HARVEIAN SOCIETY OF LONDON.
COMMITTEE FOR THE PREVENTION OF VENEREAL DISEASE.

Dr. J. E. Pollock, President.

At a meeting of the above Committee on June 13, the following reports were read by the Honorary Secretary:—

The report from the Holloway and North Islington Dispensary shows that in the year ending March 25, 1867, the total number of venereal cases treated, including infantile syphilis, was 130.

The result of the investigation of the Manchester Medical Society has been as follows, according to a letter from Dr. E. Morgan—"In the course of the three years, 1864–65–66, out of an average number of 75,000 patients seen, the average number of cases of constitutional syphilis in Manchester and Salford was 1750, to which adding an average proportion of the number of cases of skin diseases, say 950, and also an average number of cases seen at the Lock Hospital, 800, we thus arrive at the result that the average number of new cases of constitutional syphilis seen yearly in Manchester and Salford does not fall short of 3500. These returns are from public practice alone. The population of Manchester and Salford was, in 1861, 390,000.

The Lock Hospital, Manchester, has a daily average of 76 cases of venereal diseases, in-and-out patients, seen at that hospital, and about 20 in-patients.

The Ardwick and Ancoats Dispensary reports a daily average of eight venereal patients seen—in the proportion of one to eight of its surgical patients. The Southern Hospital, Manchester, sees a daily average of four venereal patients, or in the proportion of one to eight of its surgical patients. The Chorlton and Medlock Dispensary sees a daily average of three venereal patients, or about one-third of its surgical patients are venereal. The Manchester Workhouse, Bridge-street, has a daily number of 91 venereal cases, or about one to eight of its surgical cases. There are fifteen beds for male venereal cases, and forty-six for females, all for primary cases. The Salford Workhouse sees daily 9 male and 63 female venereal cases, in which there are 39 cases of infantile syphilis included. This is nearly one-third of its surgical patients. There are six beds for primary syphilitic cases in females—none for males. The Salford Hospital and Dispensary, Manchester, sees daily 18 venereal cases, or about one to twelve of its surgical cases are venereal. It has no lock beds. St. Mary's Hospital, Manchester, sees daily an average of three and two-thirds males, and 14 female venereal patients, or about one to ten of its surgical cases are venereal. No lock beds. The Clinical Hospital for children, Manchester, sees daily on an average three children with syphilis, or about one to twenty-six of its cases are so affected. No syphilitic beds. The Bridge-street Children's Hospital, Manchester, sees daily on an average one male and three female venereal cases, or as one in thirty-three of its patients. No lock beds. The New Burgh Gaol, Manchester, has a daily average of 10 venereal patients, or as 62 is to 100 of all its surgical patients. No lock beds. The New Bailey, Manchester, has a daily average of 11 males and 3 female venereal cases, or 42 per cent. of its surgical cases. No special beds for venereal cases. The Eye Hospital, John-street, Manchester, has a daily average of 10 venereal cases, or about 1 to 20 of its cases are venereal. Manchester Royal Infirmary has 23 male and 22 female venereal cases daily, or about 1 in 10 of its surgical cases. No lock beds. The Chorlton Union Workhouse, Manchester, has a daily average of 7 males and 14 venereal females, in the proportion of 1 to 9 of its surgical patients. There are twenty female lock beds, and a few beds for males distributed through the surgical wards.

In a letter from Dr. Bradley, that gentleman says—"We are fully convinced that the quacks and chemists attend a large proportion of the entire number of venereal cases occurring in Manchester." . . . "And secondly, we have included medical as well as surgical patients in our returns, as with us venereal cases come under medical treatment quite as frequently as under surgical." . . . "The Committee consider it worthy of note that the greatest average is found amongst the lowest classes of the community, and that our gaols and workhouses, which *a priori* we would expect to furnish the greatest amount of vice, return the largest percentage of syphilis, &c." . . . "Our Committee feel assured that the above statistics give the minimum number of cases of venereal diseases existing in Manchester, that, in all probability, the evil extends to a much greater extent than can possibly be ascertained by any public enquiry, that it effects a positive injury on the national physique, and that the steps which your society are taking are urgently called for, and merit every legislative support." The statistics given by the same gentleman give an average of 387 venereal cases seen daily in Manchester in public practice, or in the proportion of about 1 to 7 of the whole daily patients seen, both medical and surgical.

The report of the sub-committee was read by the Honorary Secretary (see Medical Press and Circular, July 3, 1867), after which,

Mr. Holmes Coote rose to express his admiration for the way in which the report was written. It was most readable and well expressed, and calculated to do great service. He could not help again expressing his conviction of the necessity for the registration of all brothels, and the inspection of these houses. Recently a young girl aged seventeen had been brought to him at St. Bartholomew's hospital with entire loss by sloughing of her external genital organs. The poor girl, who was very attractive, had been kept by the mistress of the brothel where she lived in a constant state of intoxication, and made to submit to intercourse with a crowd of men; and there was no doubt that such cases cried aloud for government inspection of brothels. Such a girl was at first rated as in the first-class, but by the time she had contracted disease and been salivated, she passed into the second, and then third class; and he, therefore, urged the necessity of surveillance over these brothels. Again, he objected to the words Lock Hospital, or foul wards, altogether; and thought it was time that such degrading names should no longer be attached to diseases, which were so often caused by accidents. It would be better to admit women into workhouse hospitals, instead of into special lock hospitals, and thus the women would more easily go in

than they now did. Lastly, when prostitutes went into reformatories there should be some sort of medical treatment for them whilst there. At present, when diseased, they were sent back to the lock hospital, or other hospital, when found to be ill.

Mr. ACTON thoroughly admired and concurred in most of the sentiments contained in the report. He had been in Paris only a few days before, and had been present at the examination of the prostitutes at the dispensary. Of no less than 150 women he saw examined, belonging to the registered women, not one was diseased. Their hands were examined, their throats, and then the genitalia. Very few of the women are now ever found to be diseased. Being curious to understand how it was that they were never ill, he asked one of them the reason; she replied that it was needless to examine her, as she had been there for years and had never been found ill. The truth was, Mr. Acton said, that, in the first place, the organs of generation were so completely hardened, as in many cases the vaginal mucus membrane resembled the epidermis; and, secondly, as the women knew that it was quite impossible to escape from examination, and being sent to St. Lazare, if diseased, they examined every man who came to the house, and if he was found to be diseased he was sent away at once. But there was one remark he (Mr. Acton) would make, and that was, that it was not the women who had the severest ulcerations on the genitals who was the most dangerous—such a one was seldom inclined to follow out her trade. It was that woman who had the smallest ulceration who was the most dangerous, or, in other words, the slightest cases were the most formidable. The great amount of infection was spread in Paris by the unregistered women who frequented balls, &c., and were not under any police control. It was impossible to know beforehand how many beds were requisite for prostitutes, since, when registration was once carried out, a very much smaller number of beds were soon required. He was very anxious that we should first try the voluntary system without registration, supplying plenty of beds for all diseased women. Lastly, the term foul wards was an abomination. At the time when the term mad doctors, &c., was in fashion, it suited the rudeness of the age, but ought now to be laid aside; and he thanked the Committee of the Harveian Society for having made this subject one which could be calmly and scientifically discussed in a body of scientific men, and thus make it possible to arrive at some conclusion. The religious party, however, were yet to be encountered. He was, and had always been, in favour of a large extension of beds.

Dr. CHAPMAN thought that religious prejudice was rapidly giving way. Like Mr. Acton, he still remained greatly opposed to the forcible registration and examination of prostitutes. He thought that an appeal like this Report would come home to the selfish fears of the public, and might prove effectual enough in arousing them from their apathy, and stimulating them to the voluntary treatment of venereal cases, without any such obligatory measures. He thought, too, that Parliament would be ready enough to grant money for hospital accommodation, but not for registration of prostitutes. He quite agreed that the word lock, or foul hospital and wards, should be given up; the more the suffering was disassociated from any ignominous terms, the more easily could the disease be treated and prevented.

Mr. WALTER COULSON said that the first requisite was to obtain increased hospital accommodation. It is the cases which are not taken into the Lock which are the most dangerous. For example, a young attractive prostitute came for three months to the Lock Hospital, suffering from a small ulceration of the genitalia, which, by rest and astringents, ought to have been well in a week or two. But, during the whole of this time she was noticed by some of the students to be carrying on her trade, being seen frequently at Cremorne and elsewhere. No wonder the ulcer did not heal in such a case. As to voluntary efforts, his opinion was, that in order to do any good, registration must be adopted, both for the women and the brothels. Nothing else would be effectual, and it was well-known that the better class of prostitutes, who infected the members of the middle and upper classes, were treated by chemists, &c., and did not come under the notice of the regular practitioner. His opinion was that prostitutes and brothels should all be licensed.

Mr. ACTON observed that in Paris almost the whole of the diseased women were found among those who could not be registered, because unknown.

Mr. W. COULSON said that, as a rule, women who went to asylums were sent back to the Lock Hospital when diseased, and some sort of medical treatment should be used in these asylums. Some of the 150 women spoken of by Mr. Acton must have had disease in the vagina, but escaped detection.

Mr. TEEVAN said it was true enough, as stated by Mr. Acton, that the richer and clandestine women escaped detection in Paris; but he had shown the immense benefit of registration and examination by his own account, as far as the other women went. Now, these women in this country infected one of the most important classes of our society—the working classes, and thus deteriorated the very bone and sinew of the nation. It was not, he thought, so very important to protect the wealthier classes, who could do so for themselves; but the poorer, who were so extensively attacked by these dangerous diseases, could be protected by registration of prostitutes.

Mr. R. W. DUNN had recently been in Portsmouth, and had found that, whilst the lower class of prostitutes, who had been put under the Act of 1866, were remarkably free from disease, the genteeler classes of prostitutes, who as yet had not been registered, were severely diseased. He had been informed of this by a woman, the keeper of one of the richer class of brothels in Portsmouth.

Dr. TILBURY FOX thought that some of the observations had fallen from gentlemen who had scarcely watched the proceedings of the committee from meeting to meeting. The main question was how to get legislation. The success of the operation of the Contagious Diseases Act suggested the application of a like principle of legislation to the civil population. The Committee wished to recommend a moderate kind of preventive legislation, and one likely to be adopted; and they did not wish it to be considered that the measures they suggested were final, or so complete and extensive as they thought really necessary to secure the prevention of venereal disease. They recommended a plan likely to meet with favour.

Dr. MENZIES was greatly in favour of registrations and examinations of prostitutes, both of which had been found so serviceable in the Army. They were for the benefit of the women as well as of the men. The name *Lock* wards and hospital might be exchanged for *specific*. He was much in favour of establishing asylums.

The PRESIDENT observed that Dr. Menzies' recommendations were all embodied in the report just read to the Committee.

Mr. WEEDEN COOKE said that there was a special class of the community to be legislated for in this case, and, for his part, he was much more in favour of a voluntary than of a compulsory system of examination. There was a most crying necessity for the extension of hospital accommodation for these poor diseased women; and, having had extensive experience in this matter, he would only say that the women would be but too happy to go in if there were beds open for them. There was no class of women more amiable than the prostitutes. They had only one great vice, but this seemed usually to have swallowed up all the other vices, and they had not the least desire to infect men if they only were allowed to get into a place of shelter, but at present their necessities compelled them to go on with their trade, even when in the most contagious states.

Dr. DRYSDALE said that he had much wished, in company with Dr. Chapman, Mr. Acton, Mr. Weeden Cooke, and Dr. Beigel, that the committee should have recommended first of all that an immense voluntary system should have been tried; but the majority in favour of registration had been overwhelming. As it had been decided that there was to be no "representation of the minority" in this matter in the report of the Committee—a decision which he could not but think, by the way, was needless—since the Committee was only a deliberative, not a legislative body, it would go forth that the Society was unanimously in favour of registration and compulsory examination of prostitutes, and consequently he supposed that, if society at large was of the same opinion as the majority of the Committee, this experiment might soon be tried. At the same time, the evidence of Mr. Cooke, Mr. Acton, Dr. Beigel, and Dr. Chapman was deserving of attentive consideration, which he had no doubt it would receive at the hands of the Legislature. There was one point on which there was perfect unanimity, and that was that the present hospital accommodation for prostitutes was most inadequate, and he was glad to hear that the new London workhouse hospitals were to have ample provision for venereal cases.

CURRENT LITERATURE.

THE *Glasgow Medical Journal* opens with a clinical lecture by Dr. W. T. Gairdner, treating of the Physical

Diagnosis of Cardiac Disease, apart from murmurs and special valvular lesions. The region of diagnosis that lies between symptoms and physical diagnosis, is here surveyed by a teacher whose claims to attention have long been undisputed, and we doubt not that far beyond the sphere of his own work this lecture will be studied and turned to account. The Journal further contains a case of dislocation of the hip, by Dr. Cameron; another article on the same subject by Mr. Joseph Bell, a case of idiopathic myelitis, by Dr. Black, and notes on a needle for fissure operations by Dr. MacLaren. The clinical record and report of the Medico-Chirurgical Society is also continued.

Under the title of *Clinical Lectures on Skin Diseases*, Mr. Balmanno Squire has published a smaller and cheaper edition of his coloured photographs of diseases of the skin. This will render these illustrations accessible to all. The smaller size will no doubt be preferred by many. It is small quarto, and, when complete, will be a beautiful and portable atlas. The photographs we have seen are well executed, and the colouring true to nature.

Mr. Hilton's *Hunterian Oration* for 1867, which we noticed at the time of its delivery, has now been "printed at the request of the President and Council," and published as a pamphlet by Messrs. Bell and Daldy. In this form we have no doubt it will be extensively read, as, indeed, it deserves to be. We hasten our notice of it in order to induce our readers to peruse it at once.

The Mixture Book, by A. J. Cooley, the author of the well-known Cyclopædia of Practical Receipts, forms part II. of the prescriber's and dispenser's vade-mecum, or general hand-book of compound medicines. The first part of this series was called the *Pill Book*, and has already been noticed. The present handy little volume contains all the mixtures of the pharmacopœias, those of the leading hospitals, a selection from foreign formularies, and a large collection of those of leading practitioners, besides an account of the more common "quack medicines." The whole is arranged alphabetically according to the English names. The Latin names and synonyms follow. The quantities are stated in proportional parts, and the doses and other items are given. No more experienced a compiler than Mr. Cooley could have been found, and Mr. Hardwicke has got up the work in a manner that makes it a cheap shilling's worth.

The new number of the *Westminster Review* opens with a remarkable article, evidently from the pen of an experienced naturalist, on "Mimicry, and other Protective Resemblances among Animals." The word *mimicry* in this article is not used in the sense of voluntary imitation, but to express a particular kind of resemblance that may easily deceive the eye, and by so doing serve to conceal the animal, or otherwise protect it from its enemies. It is maintained by the author that Nature does not descend to meaningless imposture, but that the imitations serve a very important purpose—that of greatly assisting in the preservation of the species. This protective resemblance would, to some extent, account for the uniformity in colour of the vegetable kingdom compared with the immense varieties of the animal world. But even the colours of flowers would follow the same general law sketched out in the *Westminster*, since the writer subscribes to Mr. Darwin's opinion that their beauty is owing to the necessity of attracting insects to aid in their fertilization. It is impossible to do justice to this article in the space at our disposal. We have accordingly marked a few passages for quotation as opportunity may occur, and refer the reader to the quarterly journal under notice. We offer this week a few extracts that will show the author's idea:—

"Desert animals as a rule are desert-coloured. The lion is a typical example of this, and must be almost invisible when crouched upon the sand or among desert rocks and stones. Antelopes are all more or less sandy-coloured. The camel is pre-eminently so. The Egyptian cat and the Pampas cat are sandy or earth-coloured. The Australian kangaroos are of the same tints, and the original colour of the wild horse is supposed to have been a sandy or clay-colour.

"The desert birds are still more remarkably protected by their assimilative hues. The stonechats, the larks, the quails, the goatsuckers, and the grouse, which abound in the North African and Asiatic deserts, are all tinted and mottled so as to resemble with wonderful accuracy the average colour and aspect of the soil in the district they inhabit.

"Almost equally striking are the cases of arctic animals possessing the white colour that best conceals them upon snow-fields and icebergs. The polar bear is the only bear that is white, and it lives constantly among snow and ice. The arctic fox, the ermine and the alpine hare change to white in winter only, because in summer white would be more conspicuous than any other colour, and, therefore, a danger rather than a protection; but the American polar hare, inhabiting regions of almost perpetual snow, is white all the year round. Other animals inhabiting the same Northern regions do not, however, change colour. The sable is a good example, for throughout the severity of a Siberian winter it retains its rich brown fur. But its habits are such that it does not need the protection of colour, for it is said to be able to subsist on fruits and berries in winter, and to be so active upon the trees as to catch small birds among the branches. So also the woodchuck of Canada has a dark brown fur; but then it lives in burrows and frequents river banks, catching fish and small animals that live in or near the water.

"Among birds the ptarmigan is a fine example of protective colouring. Its summer plumage so exactly harmonizes with the lichen-coloured stones among which it delights to sit, that a person may walk through a flock of them without seeing a single bird; while in winter its white plumage is an almost equal protection. The Snow-bunting, the jerfalcon, and the snowy owl are also white-coloured birds inhabiting the arctic regions, and there can be little doubt but that their colouring is to some extent protective.

"Nocturnal animals supply us with equally good illustrations. Mice, rats, bats, and moles possess the least conspicuous of hues, and must be quite invisible at times when any light colour would be instantly seen. Owls and goatsuckers are of those dark mottled tints that will assimilate with bark and lichen, and thus protect them during the day, and at the same time be inconspicuous in the dusk.

"It is only in the tropics, among forests which never lose their foliage, that we find whole groups of birds whose chief colour is green. The parrots are the most striking example, but we have also a group of green pigeons in the East; and the barbets, leaf-thrushes, bee-eaters, white-eyes, turacos, and several smaller groups, have so much green in their plumage as to tend greatly to conceal them among the foliage.

"The conformity of tint which has been so far shown to exist between animals and their habitations is of a somewhat general character; we will now consider the cases of more special adaptation. If the lion is enabled by his sandy colour readily to conceal himself by merely crouching down upon the desert, how, it may be asked, do the elegant markings of the tiger, the jaguar, and the other large cats agree with this theory? We reply that these are generally cases of more or less special adaptation. The tiger is a jungle animal, and hides himself among tufts of grass or of bamboos, and in these positions the vertical stripes with which his body is adorned must so assimilate with the vertical stems of the bamboo, as to assist greatly in concealing him from his approaching prey. How remarkable it is that besides the lion and tiger, almost all the other large cats are arboreal in their habits, and almost all have ocellated or spotted skins, which must certainly tend to conceal them with a background of foliage; while the one exception, the puma, has an ashy brown uniform fur, and has the habit of clinging so closely to a limb of a tree while waiting for his prey to pass beneath as to be hardly distinguishable from the bark.

"Among birds, the ptarmigan, already mentioned, must be considered a remarkable case of special adaptation. Another is a South-American goatsucker (Caprimulgus rupestris) which rests in the bright sunshine on little bare rocky islets in the Upper Rio Negro, where its unusually light colours so closely resemble the rock and sand that it can scarcely be detected till trodden upon.

"The Duke of Argyll, in his "Reign of Law," has pointed out the admirable adaptation of the colours of the woodcock to its protection. The various browns and yellows and pale ash-colour that occur in fallen leaves are all reproduced in its plumage, so that when according to its habit it rests upon the ground under trees, it is almost impossible to detect it. In snipes the colours are modified so as to be

equally in harmony with the prevalent forms and colours of marshy vegetation.

Reptiles offer us many similar examples. The most arboreal lizards, the iguanas, are as green as the leaves they feed upon, and the slender whip-snakes are rendered almost invisible as they glide among the foliage by a similar colouration. How difficult it is sometimes to catch sight of the little green tree frogs sitting on the leaves of a small plant enclosed in a glass case in the Zoological Gardens; yet how much better concealed must they be among the fresh green damp foliage of a marshy forest. There is a North-American frog found on lichen-covered rocks and walls, which is so coloured as exactly to resemble them, and as long as it remains quiet would certainly escape detection. Some of the geckos which cling motionless on the trunks of trees in the tropics, are of such curiously marbled colours as to match exactly with the bark they rest upon.

"In every part of the tropics there are tree-snakes that twist among boughs and shrubs, or lie coiled up on the dense masses of foliage. These are of many distinct groups, and comprise both venomous and harmless genera; but almost all of them are of a beautiful green colour, sometimes more or less adorned with white or dusky bands and spots.

"Fishes present similar instances. Many flat fish, as for example the flounder and the skate, are exactly the colour of the gravel or sand on which they habitually rest. Among the marine flower gardens of an Eastern coral reef the fishes present every variety of gorgeous colour, while the river fish even of the tropics rarely if ever have gay or conspicuous markings.

"In the tropics there are thousands of species of insects which rest during the day clinging to the bark of dead or fallen trees; and the greater portion of these are delicately mottled with gray and brown tints, which though symmetrically disposed and infinitely varied, yet blend so completely with the usual colours of the bark, that at two or three feet distance they are quite undistinguishable. In some cases a species is known to frequent only one species of tree. This is the case with the common South American long-horned beetle (Onychocerus scorpio), which, Mr. Bates informs us, is found only on a rough-barked tree, called Tapiribá, on the Amazon. It is very abundant, but so exactly does it resemble the bark in colour and rugosity, and so closely does it cling to the branches, that until it moves it is absolutely invisible. An allied species (O. concentricus), is found only at Pará on a distinct species of tree, the bark of which it resembles with equal accuracy. Both these insects are abundant, and we may fairly conclude that the protection they derive from this strange concealment is at least one of the causes that enable the race to flourish.

"Many of the species of Cicindela or tiger beetle, will illustrate this mode of protection. Our common Cicindela campestris frequents grassy banks, and is of a beautiful green colour, while C. maritima which is found only on sandy seashores, is of a pale bronzy yellow, so as to be almost invisible.

"There are in the East small beetles of the family Buprestidiæ which generally rests on the midrib of a leaf, and the naturalist often hesitates before picking them off, so closely do they resemble pieces of bird's dung.

"A number of our small brown and speckled weevils at the approach of any object roll off the leaf they are sitting on, at the same time drawing in their legs and antennæ, which fit so perfectly into cavities for their reception that the insect becomes a mere oval brownish lump, which it is hopeless to look for among the similarly coloured little stones and earth pellets among which it lies motionless.

"The distribution of colour in butterflies and moths respectively is very instructive from this point of view. The former have all their brilliant colouring on the upper surface of all four wings, while the under surface is almost always soberly coloured, and often very dark and obscure. The moths on the contrary have generally their chief colour on the hind wings only, the upper wings being of dull, sombre, and often imitative tints, and these generally conceal the hind wings when the insects are in repose. This arrangement of the colours is therefore eminently protective, because the butterfly always rests with his wings raised so as to conceal the dangerous brilliancy of his upper surface."

The *Medical Mirror* publishes this month the first list of signatures to the petition to parliament, got up by the editor, praying that the registered practitioners in the kingdom may be directly represented in the Medical Council. The list is most respectable, and contains more than 300 names. The petition is about to be presented by Mr. Gladstone. The same journal denounces, in a vigourous article, the system of pluralism upheld by many of our hospital men, who, while endeavouring to crush special hospitals, are the real cause of their existence, through the greediness with which they grasp half-a-dozen offices at once. The third number of the new series of the *New York Medical Journal* is before us. The present issue contains articles by Drs. Hammond, Lombard, Lusk, Howe, and Hutchins.

Review.

ON LITHOTOMY. By WILLIAM FREDERIC TEEVAN, F.R.C.S., B.A., Surgeon to the West London Hospital, Surgeon to St Peter's Hospital, and Lecturer on Anatomy at the Westminster Hospital. London: Andrew T. Roberts.

THE little pamphlet is filled with original, and in our opinion, correct ideas on the subject of lithotomy. Mr. Teevan clearly demonstrates that the principle of dilatation of the prostate, commonly taught in our schools of medicine, is an impossibility, where there is an ordinary sized stone, and this he proves by the consideration of the anatomy of the parts, and also by the results of operations as shown by the preparations in the Museums of the different schools. We cannot do better than quote the practical conclusions to which the author has come by reasoning from these data:—

"1. That when lateral lithotomy is performed, the stone ought always to be cut out and not torn out.

"2. That the median operation is not justifiable for the extraction of calculi which are upwards of half an inch in diameter, for if such sized stones be removed by that process, obliteration of the orifices of the ejaculatory ducts and permanent impotence will ensue.

Lateral lithotomy in the boy is such a very successful operation, and if performed without laceration of parts, causes no injury to the seminal ducts, that no possible advantage can be gained by substituting the median operation for it, inasmuch as that procedure cannot often be accomplished in the child without lacerating the very parts we ought to avoid—the floor of the prostatic urethra.

"The only cases in which the median operation is eligible, is in those rare instances in the adult, in which there is a small stone, and in which lithotrity may not be considered admissible.

"I have now shown by examination of parts after lithotomy on the living, and by experiments on the dead subject, that no ordinary sized stone can be extracted through an ordinary sized prostate by means of the limited incision and so-called dilatation, without complete rupture of the prostate and its capsule, and frequent injury to the ducts, and other important parts. The surgeon is, therefore, reduced to the selection of one of the following methods of extracting the stone:—by tearing it out, or by cutting it out. I will show that the latter method is the preferable one. When a stone is extracted by a combination of cutting and dilatation (laceration), the surgeon does not know what mischief he may have caused, for when once he begins to tear, he cannot possibly tell where his rent will terminate. I have already stated that the laceration may extend into the rectum, far into the bladder, or destroy the seminal ducts. Now, although these injuries are very serious, they are not positively fatal, and, therefore, the deadly consequences resulting from the effects of laceration, are to be found in the extensive smashing of the plexus of veins round the prostate and neck of bladder. At all times a clean cut wound is preferable to a lacerated one, for not only is the latter attended with considerable local destruction of tissues, but it is more often followed by phlebitis and pyemia, than the other. Now the plexus of veins surrounding the prostate, cannot be smashed with impunity. If such be done, extensive suppuration may follow, and we are exposing the patient to all the chances of phlebitis and pyemia. In the adult, the veins often attain an enormous size, and any destruction of tissue must be at the expense of running a serious risk. An examination of the specimens in the museums teaches that, above all things, afrce oughtto be avoided; gentleness implies cutting; force loceration."

We strongly recommend the perusal of this little work to every surgeon. The subject is clearly and practically treated, and we consider that Mr. Teevan has turned over a new leaf in the annals of lithotomy.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 10, 1867.

LONDON COLLEGE OF SURGEONS ELECTION.

LAST week, just as this election was about to come off, we gave our final remarks on the subject. We have now to report that the party of progress has won a complete victory. The Fellows of the College have triumphantly vindicated their rights by placing three new men in the Council. Nor will the Profession, as a body, regret this result of the contest. This journal has frequently pointed out that the only hope of any of the Corporations being rendered serviceable to the Profession rests in a complete change in their Governing Bodies. So long as men of the old times, and of worn-out ideas, filled all the offices of influence, there could be no possible improvement in the condition of things. The Fellows of the London College have at length become awake to this fact, and have successfully carried out the first step in the much-needed Reform. There is one point in the recent contest that ought not to be lost sight of. Great fears were expressed that Mr. PRESCOTT HEWITT would not succeed because he refused to canvass. We must say it redounds much to the credit of the Fellows as a body, that they have placed him at the head of the Poll, and thus conclusively proved that no mere personal end was sought, but that they desired to establish a great principle. The three gentlemen elected were the next three in rotation. Mr. HOLDEN, who was brought forward as the Representative of the Fellows by Examination, was, although not elected, so widely supported that it is not unlikely a further attempt may be made to represent the examined Fellows on the Council. It may, indeed, be questioned, and, no doubt, will be by many, whether an invidious distinction of this kind should be set up, for every one knows well enough that the original Fellows had, at the time of the charter, already established their reputations, and a mere difference in age is the origin of the distinction between the two classes in the case at issue.

Mr. HOLDEN was an excellent man to put forward as a representative, since his popularity could not fail to insure him a large number of votes. Hereafter he will, no doubt, obtain a seat at the Council-table.

Messrs. SKEY, WORMALD, and KIERNAN retire with all the honours of their past career, and cannot but acquiesce in the decision that has been come to.

Messrs. PRESCOTT, HEWITT, SPENCER, SMITH, and BIRKETT now come forward to take their places as representatives of the reformers in the College, and their conduct will, of course, be eagerly watched by all interested. They have, we believe, made no public profession of faith, and their election is the result of a determination to effect some change. We trust now they will soon give some sign of the course they intend to pursue. The mere word "Reformers" will not be talisman of sufficient power to transform the College government into a liberal and enlightened system, nor will the mere presence of three new men abash the selfishness that has too long reigned supreme. The great body of the Fellows and Members of the College—nay, the whole Profession—look to the three new Councillors to deliver them from the tyranny under which they have too long groaned, and inaugurate an era of justice and right. Not that, happily, they will be alone in the conflict. There are already in the Council men who would gladly renovate the College, but who have too long been outvoted by the old party. Three new recruits to the weaker, though popular side, will equalize the contending forces, and enable the battle to be fought with more hope of success. We wait with interest the opening of the campaign.

UNIVERSITY OF LONDON.

ANOTHER candidate for the seat to be conferred upon this important constituency is announced in the person of Sir JOHN LUBBOCK, Bart., F.R.S. This distinguished scientific gentleman is not a Graduate of the University, although he is a Member of the Senate, and his father was one of the founders of this body. He is politically a thorough Liberal, and, there can be no doubt, would command extensive support from the Liberal Electors. He has always evinced considerable interest in Medical matters, and has recently accepted the post of Treasurer to the City Dispensary. We still retain the preference we have expressed for a Medical Graduate, but if one cannot be found, we could scarcely object to so eminent a Naturalist as Sir HN LUBBOCK.

DEASE *V.* WHISTLER.

THE circumstances disclosed in the case of DEASE *v.* WHISTLER, reported in our legal intelligence this day, when regarded as a sequel to late experience, justify us in declaring that the relation of Poor-law Medical Officers to their Board of Guardians, has become so unsatisfactory, that a serious question arises as to a remedy for a state of things which cannot fail to prejudice the efficiency of the Irish Medical Relief system. We do not derive this conclusion from this individual instance, for it is quite certain that the Bray Dispensary Committee has behaved in an exceptionally tyrannical manner towards its Medical Officer, but because, on a review of the late cholera emergency, of the manner in which it has been met by the whole body of Poor-law Medical Officers, and the acknowledgment of their services by Boards of Guardians generally throughout Ireland, we find, unfortunately, ample reason for our discontent. Whilst common consent declares, as we venture to assert it does, that the Medical Men of Ireland have done their duty with unflinching zeal, and in a humane and self-sacrificing spirit, which is thankfully recognised by all who entertain no interest or prejudice to the contrary, their public employers have shown—and we regret to record it—that they are influenced neither by gratitude towards their officers, nor respect for our Profession.

If Irish Poor-law Medical Officers had confined their labours, as they might have done, to the strict letter of their duty, they might have escaped with a tithe of the work and the danger which they did actually incur, and they could not have received fewer thanks, but they thought less of their private comfort or advantage, than of the appeal of the suffering poor. And what is the acknowledgment which they receive? We cannot call to mind one single instance in which a Board of Guardians has, of its own motion, honestly and liberally remunerated their Medical Officer in such proportion as the honest judgment of gentlemen might be expected to dictate, and we have recorded in our columns too many instances in which a miserable pittance, which those who gave it knew to be inadequate, was absolutely forced by process of law, from a niggardly conclave of Guardians.

It would have been a pleasure to us to be able to regard the proceedings of the Bray Dispensary Committee and Board of Guardians towards Dr. WHISTLER as peculiar to those assemblies. But as far as the evidence in DEASE *v.* WHISTLER goes, we do not find them more contemptibly little-minded than their fellow-guardians of the Dublin Unions. No thought of the necessity of guarding the public against the advent of cholera; no fair effort to meet the emergency by extra medical attendance; no sympathy with the fourteen hours' daily labour, prolonged into the night, which devolved upon their unfortunate Medical Officer; but the characteristic anxiety about the "after season," the paltry petty interests of lodging-house keepers and Mr. BRESLIN'S hotels, the miserable niggardliness of which puts pocket before justice.

Not one of our readers of ordinary acumen can fail to see that it was because Dr. WHISTLER protected his own professional character by contradicting a falsehood publicly circulated on his authority, without considering the calamity which his candour entailed of interfering with the arrangements of "Lady WALSH," Mr. BRESLIN, and the lodging-house keepers, that it was determined to stamp out a taste for truth and discretion which might prove dangerous on another occasion. We can acquit Mr. DEASE of anything but the hot-headed folly which rendered him ridiculous both in and out of court, and induced him to make a statement which was perfectly correctly characterised by Dr. WHISTLER as "totally without foundation," and which any man must perceive to be ruinous to Dr. WHISTLER'S character.

In the course of a most powerful, argumentative, and touching appeal to the jury, which, it is much to be regretted, has not been preserved, the following pathetic and truthful statement fell from the eloquent lips of Mr. DOWSE:—

> Gentlemen of the Jury—We all hear of the courage displayed by the general and the private on the field of battle—we hear of courage exhibited at the Redan, at Malakoff, and the taking of Sevastopol, when the ardent soldier, under the influence of wild excitement, rushes into action to win honour, distinction, and advancement, to be decorated with the medal, the clasp, and the cross of honour. But, gentlemen, I will tell you what true courage is; it is when the Physician, fatigued, harassed, and anxious, leaves the bosom of his family at the still hour of midnight, to visit alone in the wretched houses of the destitute, the half-starving and the suffering poor, a disease the most appaling that the human eye could rest upon—the collapse stage of cholera—to behold the parent, who is the entire support of a helpless family, lying in the firm grasp of death, to drive off which, human aid is ineffectual; the Doctor fearlessly exposes himself to the contagion of a disease which soon may lay him, also, on the bed of death; and he does this unseen by the public eye; no decoration is in store for him, and no record made of such heroic acts. This, gentlemen, I call true courage; and for this, how is my client rewarded. I read from his report-book that when he requested, on the 5th November, from his committee, relief of night duty, after having for thirty-five days attended the cholera and dispensary cases, night and day, stating "that fourteen hours daily is as much as can be fairly required of me, and more than I am quite able to go through, I have therefore to inform my committee of my present inability to do night duty," he is answered by a refusal, resign or go to the country, and pay for a substitute and starve. Is this, gentlemen, the way that an intelligent, educated, and over-worked Medical Officer is to be treated after eighteen years faithful service? We will use you as long as you can work, and then we will throw you aside as we would an old shoe. Nothing has struck me with such wonder throughout my life, as to witness men I have been acquainted with, educated, intelligent,

gentlemen by position and birth, becoming the Medical Officers of dispensaries, at the miserable salaries they receive, but whilst Mr. O'Reilly Dease, J. P., Dep.-Lieutenant, and Poor-law Guardian, deliberately proposes that no extra remuneration is to be given to Dr. Whistler, after more than three months attendance on such a disease as cholera, and that, because he received the munificent sum of £90 a-year, he should labour in this epidemic for no extra pay, or resign. Remember, gentlemen, from whose divine lips these words fell, "the labourer is worthy of his hire."

Probably the affluent Mr. DEASE little expected that a *mere* Dispensary Doctor—as rich and as poor as Dispensary Doctors usually are—would have met command to bow the knee with as spirited a refusal as it did, and the Profession ought to be thankful that it has been so, for at great personal annoyance and sacrifice, Dr. WHISTLER has asserted a right which Poor-law Medical Officers will not easily forget.

Let Medical men remember in future that, when a similar emergency arises, they can trust nothing to the good taste or liberality of Irish Boards of Guardians; let them remember that there is a Poor-law Commission placed above the contemptible self-interest of such coteries, who have shown their readiness to do justice, in some proportion to the merit of their labours—and let them learn from this flagrant attempt at bullying, that their is no influence in Guardians or Committee-men which ought or can hinder their Medical Officers from truthfully warning the public against great coming danger, or freeing their own characters from false aspersions, no matter from whom they come.

CEREBRO-SPINAL FEVER.

[COMMUNICATED.]

THE reports of cases which we publish, week after week, form collectively an impartial record of a great variety of methods of treating each of the numerous diseases which claim the attention of medical men, and, as a general rule, we abstain from expressing an opinion of the relative value of the several methods adopted. There may, however, be extraordinary occasions when it behoves us to deviate from the course which we deem it expedient usually to pursue; and we think that the outbreak and continuance in Ireland of the disease popularly known as "Black Death," and which we shall speak of as Cerebro-Spinal Fever, constitute one of these occasions. We proceed, therefore, to direct the attention of the Profession to some facts connected with this disease which, so far as we have been able to observe, do not seem to have received due consideration from those physicians in Ireland who have been called upon to treat it.

In the Memorandum relating to Cerebro-Spinal Fever, when epidemic in North Germany, addressed by the head of the Medical Department of the Privy Council to its President, April 19, 1865, he observed—"So far as results have yet been codified, medicine seems universally to have been powerless against the disease, and perhaps in some cases to have lessened the patient's chances of recovery. The officers who have just reported to the Prussian Government on the epidemic prevailing about Dantzig adverts (like many preceding writers) to the sudden collapse which often baffles all remedies. And evidently a disease which tends to that issue will not admit that generally depressing treatment be used against it, except (if at all) with the very utmost circumspection. It is on record that one French practitioner, who tried bleeding for the disease, lost thirty of his first thirty-one cases, while a second, using similar treatment, lost twenty-one out of twenty-two; and though other practitioners have alleged that in their hands this treatment has been of good effect, certainly it could not be admissible except under very close and careful qualifications with regard to the circumstances of its employment. Mercury has been freely tried, and seems to have been at least useless. Opium has been strongly recommended by some French practitioners, and perhaps, under some circumstances, has been of advantage."

This statement represents the conclusions of numerous observers—German, French, American, and English. Professor Hirsch, of Berlin, who undertook a thorough investigation of the disease, by order of the Prussian Government, and whose latest views concerning it are embodied in a comprehensive and elaborate monograph which he published last year, expresses a decisive opinion, which he fortifies by the testimonies of numerous authorities, that, in presence of this formidable disease, medicines of every kind prove alike powerless. We have carefully reviewed all the reports of treatment recently published in our columns, and have been struck by the fact that the therapeutical methods adopted have been scarcely less numerous, widely divergent, discordant, and fruitless than those which have been resorted to in the treatment of cholera. Here is an epitome of what has recently been tried by way of treatment of Cerebro-Spinal Fever in Dublin—mercury, carried in some cases to the extent of salivation, emetics, cathartics, opium, belladonna, digitalis, squills, prussic acid, chloroform, ether, Dover's powder, James's powder, chlorate of potash, carbonate of soda with lemon-juice, valerian, iodide of potassium, and cinchona bark, ammonia, wine, and brandy—all internally; enemeta of turpentine &c., were also freely administered; and besides these internal remedies, cupping, leeching, blisters, sinapisms, turpentine stupes, heat and friction to the limbs, and tartrate of antimony to the shaven scalp, were often prescribed.

Thoughtful men, on viewing such a formidable list as this, are not unlikely, as it seems to us, to echo the words of Mr. Simon—"Perhaps in some cases medicine has lessened the patient's chances of recovery," a phrase, the substance of which is also expressed more than once by Professor Hirsch. It is now generally admitted by the leading members of the Profession, that medicines avail nothing to recover patients from choleraic collapse. But although this conviction was arrived at by numerous observers in 1832, and was decisively established by the returns obtained by the Treatment Committee of the Medical Council appointed by the General Board of Health, of the treatment pursued in cases of collapse during the epidemic of 1854, the distressing practice of administering drugs during collapse is still, to a large extent, persisted in, so that thousands of cholera patients, while deriving no aid from them, not unfrequently suffer from their effects, especially if the struggle for life is prolonged into the stage of "reaction." Now, we appeal to the common sense of the Profession, and ask whether, in reference to Cerebro-Spinal Fever, a like melancholy and discreditable

history is to be enacted? Have we not data enough to enable us to settle once and for ever, whether or not medicines can exercise a remedial power in the treatment of this disease? If we have, surely the question presses urgently for an answer; and it behoves us not less surely, if that answer should be negative, at once to acquiesce in, and act upon it by ceasing to trouble the sufferers with drugs, which, though certain to do no good, are anything but certain of doing no harm.

After carefully considering the abundant evidence bearing on this point, and now readily accessible, we do not hesitate to affirm that according to our judgment this evidence amounts to irresistible proof, that in the treatment of Cerebro-Spinal Fever, drugs are useless, and that the chances of life of sufferers from the disease are, *cæteris paribus*, greatest in those cases in which none are given.

Now, if this conclusion—the conclusion, as we have said, of many distinguished writers who have recorded their experience in treating the disease—be correct, the question arises, are we then to stand by and do nothing, or does experience countenance any other procedure than those which we have enumerated above? It seems to us that this question is susceptible of both an affirmative and an encouraging reply. Mr. Simon, in his Memorandum, already mentioned, observes:—"In various processes of disease which resemble meningitis in their nature, the local application of cold judiciously and skilfully made, has given to modern medicine some very notable successes; and to it, more than to any known resource of the art, I should myself have been disposed to look hopefully in the present instance. . . . And Dr. Thudichum (who has seen something of meningitis on the Continent, and who has favoured me with a memorandum on the recent epidemics in Bromberg, Ottmachan), tells me that present experience in Germany is in favour of this principle of treatment." Dr. Burdon-Sanderson, in his excellent report "Of the Results of an Inquiry into the Epidemics of Cerebro-Spinal Meningitis, prevailing about the Lower Vistula, in the beginning of 1865," expresses himself as follows:—"I think that the complete concurrence of opinion among practitioners is sufficient to warrant the statement, that notwithstanding the generally negative results which are observed, leeching, and the application of ice-cold to the spinal cord, is the only mode of treatment by which the progress of the disease is likely to be arrested, and that its utility is confined to the first day, and, in some instances, to the first few hours after the patient has begun to vomit." But the most decisive and weighty evidence of the therapeutical value of ice is given by Professor Hirsch, in a passage quoted by Dr. Chapman, in his work on "Diarrhœa and Cholera," page 182, who, referring to the treatment of Cerebro-Spinal Fever by means of ice, has there summed up the facts and arguments in its favour. Professor Hirsch says—"The treatment of meningitis epidemica by the external and local use of cold, viz.—in the form of bladders of ice applied to the head and neck—has obtained a far more favourable judgment than bleedings of any kind, and generally it is found to be far superior to any other curative methods of an antiphlogistic character. Almost all observers who have adopted this plan declare themselves satisfied in the highest degree with the pain-assuaging, soothing, and simultaneously vivifying effects which the cold, thus applied, exerts on the undue sensorial activity of the patient; and even if it should be doubtful how much this treatment may assist in bringing the malady to a fortunate issue, yet, bearing in mind the complete harmlessness of the means when rationally used, an additional indication for the adoption of the same will be found in the eagerly-expressed wish of many patients for the continuous application of the cold, which, for some reason or other, it had been deemed right to interrupt. It has been proposed in some quarters to lay ice-bladders along the vertebral column. Wunderlich justly pronounces this procedure more troublesome than useful."

In face of these important statements, made in one case by the head of the Medical Department of her Majesty's Privy Council, and in another by the distinguished Physician appointed by the Prussian Government to enquire and report concerning the nature and treatment of the disease, we confess to some surprise in observing that, so far as we are aware, these authoritative recommendations have, with one exception, been wholly ignored or disregarded in the treatment of Cerebro-Spinal Fever in Ireland. In no instance, we believe, has ice been applied to the back of the neck, and in only one case (treated by Dr. Lyons) does there appear evidence that it has been applied to the head. We earnestly hope, however, that the extensive experience in the treatment of Cerebro-Spinal Fever in Germany, which has led to the conclusions we have now laid before our readers, will not be lost on those English and Irish Physicians who may be called upon to treat the disease, and that, if, unhappily, adequate opportunities should present themselves, the value of "the external and local use of cold" may be thoroughly tested and ascertained.

Notes on Current Topics.

Mr. Macilwain's Surgical Commentaries.—We commence with the present number a series of articles by the well-known author of the "Life of Abernethy," and "Medicine and Surgery one Inductive Science." The articles, when finished, will furnish a complete digest of Mr. Macilwain's principles and practice. As these have excited attention in America as well as in these islands, both from the boldness of their exponent, and the skill with which they have been advanced, we anticipate that this epitome, fresh from the pen of the veteran writer, and containing his latest views, will particularly interest our readers.

Harveian Oration.—This oration at the London College of Physicians was delivered by Dr. Alderson, the President, on Saturday the 29th ult. The memory of Harvey has thus been annually celebrated for more than 200 years. Until lately the oration was delivered in the Latin language, but, in accordance with the comparative neglect into which the cultivation of that tongue has fallen, the College has relaxed the rule, and for some years it has been given in English. Since the change the audience has greatly increased. Dr. Alderson took a wide view of his subject, maintained the philosophic character of medicine, and was quite equal to the expectations of his distinguished audience.

Dr. Livingstone.—Further news of this intrepid explorer's death has been published, consisting of another account of his fate, furnished by the same Moosa, whose former statements were so inconsistent and unsatisfactory. We are glad to observe that Sir Roderick Murchison, and

others, still maintain that we have no conclusive proof of the great medical missionary's death, and it is very fairly urged that Moosa, who was well-known for his untruthfulness, having given three conflicting accounts, is unworthy of credit as to either. So long as hope remains the search should be prosecuted. Livingstone's re-appearance safe and sound would be a gratification in all directions.

HIGHLAND SUPERSTITIONS.—According to the *Inverness Courier*, strange superstitions, leading to acts scarcely credible in this age, still reign in the Highlands. Our contemporary tells of live fowl being buried with the 'parings of an epileptic patient," and mentions, as well authenticated, a circumstance that occurred only a few years ago in a remote part of Morayshire, and that is calculated to excite feelings of disgust and indignation, being nothing less than the burning alive of an ox, in the hope of arresting an epidemic among cattle. It is well that such subjects should be investigated by journalists on the spot, for the sake of preventing a recurrence to such barbarous superstitions.

GUILTY BY BALLOT.—It is stated by the *Bucks* Herald that, at the quarter sessions, a man charged with stealing two trusses was actually tried by ballot. The enlightened British jury, to which the case was submitted, not being able to decide upon the evidence, according to the *Herald*, placed twelve slips of paper in a hat. Of these ten were blanks ; on one was written "guilty;" on another "not guilty." As the one indicating guilt was first drawn, the jury returned to court and gave a verdict of guilty. We should be glad to know whether these Buckinghamshire jurymen indulged in any solemn incantations before they submitted the guilt or innocence of the accused to the ordeal of the ballot.

THE STATE OF THE PROFESSION.—Dr. Edwin Lee, who has written several pamphlets on this subject, has petitioned Parliament to the following effect:—

"The humble petition of EDWIN LEE, M.D., a Member of the Royal College of Surgeons, and of several Foreign Medical Societies, to the Honourable Commons of Great Britain and Ireland in Parliament assembled—

"HUMBLY SHEWETH—That the Medical Profession in this country, being in a most unsatisfactory condition, which has for a long time past given rise to much agitation as well as distress within its pale, as also to reiterated debates in your Honourable House, without producing any materially beneficial results, your Petitioner, feeling convinced that the partial measure contemplated by an amendment of the Medical Act of 1858 would prove ineffectual in procuring an essential amelioration in the state of the Profession, or the removal of the abuses that continue to afflict the Medical body, humbly prays your Honourable House to take into serious consideration a subject so vitally concerning the well-being of the community ; and to devise such means as in its wisdom may seem fit, in order to the formation of an efficient system of Medical organization, and of legislative supervision, such as prevails in the other civilized countries of Europe.

"With a view to facilitate this object, your Petitioner, on his examination before the Parliamentary Medical Committee of 1848, as also on subsequent occasions, has sought, after comparing the Medical systems of organization of this country with those of the principal Continental States, to show in what respects reforms are most urgently required. He has embodied a recapitulation of the opinions entertained by himself, together with those that have been expressed by others who have given their attention to the subject, in an account of the state of the Medical Profession at the present time, so as to present what he conceives to be an impartial statement of the question.

"A copy of this pamphlet is respectfully offered to each member of your Honourable House, and your Petitioner will ever pray."

Legal Intelligence.

EXCHEQUER NISI PRIUS.

(Before the Chief Baron and a Special Jury.)

M. O'REILLY DEASE *v.* THOMAS L. WHISTLER, M.D.

THIS was an action to recover damages for an alleged libel written of the plaintiff by the defendant to the *Daily Express*, which was published in that newspaper. The plaintiff is an ex-officio member of the Rathdown Board of Guardians, and a member of the Bray Dispensary Committee. It appeared that the action arose out of proceedings at the Dispensary Committee and at the Board of Guardians concerning the defendant as medical officer. The committee recommended that £40 should be given to the defendant for his services during the cholera epidemic in Bray in the course of last autumn. A report containing that recommendation was sent forward to the Board of Guardians. In compliance with the request of the committee the plaintiff attended at the Board of Guardians on the subject. When the report came before the board he stated that the defendant had twice received the censure or had been censured by the dispensary committee. In reference to this it was that the defendant wrote the libel complained of. In this letter the defendant said his attention had been called to a report in the *Daily Express*, of proceedings at the board of guardians, at which Mr. Dease was reported to have said that he (Dr. Whistler), had been twice censured by his committee, and, "considering that such a statement was readily calculated, though, I trust, not intended to injure my character, I lost no time in placing myself officially in communication with Thomas Smyth, Esq., Hon. Sec. of the committee, so that I am in a position to state that Mr. Dease had no foundation whatever for advancing such an imputation." The letter was dated 7th February, 1867. The defendant pleaded several defences. He denied that he printed or published the letter ; he traversed the defamatory sense imputed ; and pleaded that the words complained of were not a libel. There was also a special defence setting forth a number of matters in connection with the positions of the parties at the dispensary committee, the circumstances under which the alleged libel was written, and justifying the writing and publishing for the reasons set forth in the defence, and averring that the plaintiff had no foundation for the statement that the defendant was twice censured by his committee. The plaintiff in his evidence stated that the committee were greatly displeased for writing to a newspaper a letter stating that cholera of a severe type prevailed in Bray, the more so as the committee considered the statement unfounded. They censured Dr. Whistler for that, and also on another occasion, for asking leave of absence at a time when he said cholera existed in Bray. The censure was not recorded in consequence of a motion by Mr. Wingfield Verner, M.P., seconded by him (Mr. Dease) not to do so. The committee were unwilling to give him any special payment in relation to the cholera, but voted the £40, being obliged by the Poor-law Commissioners to do so. The committee recorded that he (Mr. Dease) should attend before the Board, when the report came up, to make observations upon it. He did attend, and what he stated to the Board was perfectly true. Mr. Breslin was also examined in support of the plaintiff's case.

GEORGE HUDSON, Esq., J.P., was examined by Mr. Exham, Q.C.—I am a magistrate of the county Wicklow, and an *ex officio* guardian of the Rathdown Union Board,

and attended the dispensary committee last year during the prevalence of cholera. I was present when there was a discussion relative to cholera reports. A letter was produced from the *Bray Gazette* on that day after the business of the day was concluded. A division took place on the subject, in which I and others said that letter was calculated to give alarm to timid people, especially to ladies, and that I always understood that those afraid of cholera were more likely to take it, and that it was calculated to frighten the visitors, make them go away, and prevent others from coming, and be injurious, particularly to the hotels. I have no interest in the hotels, or directly in house property in Bray. Mr. Verner, M.P., proposed a vote of censure on Dr. Whistler, which the plaintiff seconded, but before it was put Mr. Jackson and I urged that it should not be put on the record, as it would be injurious to the defendant, and after Dr. Whistler had said he was sorry for it, and that it should not again occur, the matter was suffered to drop. The only other occasion I recollect was when Dr. Whistler applied to us that we should recommend to the guardians to allow him not to be called out to do night duty. The committee seemed greatly surprised at it, and I said in his presence that "I considered it surprising that, when the cholera was said to be raging, he should make such an application, and that when Dr. Leney, who was an older man, thought it his duty to attend to night duty, although not immediately connected with that particular district, it was not fair to put additional duty on him." I then said, "I could not conscientiously recommend the guardians to comply with his request."

Cross-examined by Mr. Dowse, Q.C.—I said the letter was calculated to injure the "after season" at Bray. My objection was that the letter was impolitic, not that it was untrue. Defendant made an explanation, and we were not satisfied. My recollection is that he stated he was fourteen hours per diem on duty, and that he felt unable, after such severe labours, to do night duty. I was not aware of a doctor being employed on night duty at Kingstown. I understood that, if he was unable to do the duty, he should have gone to the country, and employed another person during his absence. We did not give him what he asked.

To a Juror—I all through thought there was Asiatic cholera in the district, but I thought it was exaggerated.

The plaintiff's case closed.

Mr. Dowse, Q.C., stated the defendant's case, and characterized the libel as one of the mildest libels which ever was brought into a court of justice. Dr. Whistler is an eminent man in his profession, and against whose honour and good name not a breath has ever been raised. He has been for fourteen years resident in Bray, skilled in his profession, and holding degrees from the Colleges in which he has graduated. He receives the magnificent remuneration of £90 per annum for his salary as medical officer of the Bray dispensary. In September last the dread cholera appeared, and remained there until the middle of January, and the labour and fatigue of all that period fell on Dr. Whistler. The dispensary committee consisted of highly respectable men, and, among others, of the plaintiff, a well-meaning but fussy person. Why did not the plaintiff produce Dr. Leney? The books showed that from September to January he attended himself 132 cases of cholera, of whom 72 died, and 60 recovered. The people of that locality were anxious to conceal the fact of its existence there, and cry, "Peace, peace, when there was no peace." All the meetings of the committee during this period were attended by Dr. Whistler. He saw in the *Irish Times* of the 31st of October, a paragraph relative to cholera. "Tuesday night.—Medical Committee—At the meeting this day the medical officers reported that cholera had entirely abated in the township, and no fresh cases had appeared since the last report." Why there was no meeting, and no such report was read. Dr. Whistler on that very day had reported (and it was before the meeting on the 3rd November) that a fresh and severe outbreak of cholera had appeared. At this meeting Dr. Whistler was to be put under ban for telling the truth. Dr. Whistler, seeing that it was stated in the *Irish Times* that there was no fresh case of cholera, when he knew there was, and that there was a meeting, when there was no meeting, he sat down and wrote a letter to the *Irish Times*, stating that the letter of their correspondent was not true, as a large number of new cases of a malignant type had occurred since his last report; and honourable men will not condemn him for telling the truth. But the truth was not to be told, and the animus of the members of the committee is unmistakable. The letter was read, and a defendant said he had a right to write to any public journal. They have not the courage to say that this letter was untrue. He said: "As the committee don't like it, and as it might injure Bray, I won't for the future mind such reports, and I will not write again to the papers." There was no censure passed then, for his explanation stopped it, being deemed satisfactory. What on the next occasion? Worn out by his labours in attending on the poor, and brought into contact with disease and poverty, and combating with this malignant disease, which has baffled medical science, and with its terrible collapse, and brought out every night, Dr. Whistler, tortured with fourteen hours of labour for thirty-five days, found himself unable to cope with night duty, and, nervous and harassed he told them that he was worn out, and they told him he might resign or go to the country and recruit. They refused to give him leave, and the plaintiff has the coolness to inform you that because they refused to relieve him that is a censure! On the meeting of the 2nd February, 1867, the question of extra-remuneration came before them, and Mr. O'Reilly Dease moved that he get nothing. The Poor-law Commissioners and the Guardians on the Committee did not think so, and the committee voted him £40, and he politely bowed, and said he would not accept it. It was brought before the Board of Guardians, and the plantiff attended, but he had no right to libel my client as he did there. But a sealed order came down from the Commissioners, and he got £60. At this meeting the plantiff was there, and they disposed of Whistler's case in his absence. The resolution giving him £40 was read, and a letter from defendant was read, stating that the remuneration was inadequate. Mr. Dease said, "He unwillingly referred to the fact that Dr. Whistler had been twice censured by the committee, and that, therefore, the resolution of the committee should be agreed to without alteration." There was no censure. The plantiff is a passionate and injudicious man, and sometimes does things that he ought not to do, and this was one of them. This is one of the most baseless, senseless, paltry causes of action which was ever heard in a court of justice.

Dr. Whistler was examined by Mr. Palles, Q.C., and stated that he was an M.B. and B.A., of T.C.D., and a Fellow of the R.C.S.I., and had been in practice twenty-four or twenty-five years. First practised near Galway, and came eighteen years ago to Bray, on election out of 120 competitors to the Bray Dispensary, for the Bray and Rathmichael district. There are two medical officers attached to that particular district, viz., Dr. Leney, to Rathmichael, and I have Bray, the lion's share. The population of my district is 5000, including Little Bray, and having many of the poorest within it. I was appointed at £100 when I had less to do, and it was afterwards reduced to £90 when the Medical Charities Act came into operation. On the 6th October, 1866, it was resolved that, as some cholera cases were reported, the committee should meet every Tuesday, and should have power to appoint two additional medical officers, at salaries of not more than £3 per week, and additional nurses, and that medical appliances should be provided. I attended whenever blankets, nutriment, &c., were to be given out to the sick poor, and anything I, as medical officer, deemed necessary. The hours of attendance were from ten to eleven at the dispensary, and at my own residence from twelve; but in point of fact I arose at seven o'clock in the morning, and went every day of the week before nine o'clock to the dis-

pensary, and frequently to the houses of patients, before the dispensary opened. There was no cholera hospital in Bray, and none nearer than the workhouse hospital at Loughlinstown, three miles from Bray. There was a cart, that sometimes it was impossible to obtain for their conveyance. I never left before eleven o'clock, and often remained after eleven, and then remained at home for an hour to see if there were any other calls, and then went out to visit patients attacked with cholera and other diseases in their own homes. The cholera patients had a repugnance to go to hospital, and practically they did not go there. I never was free from attendance during the cholera time for four or five hours. I could not get back before three o'clock, having to make up the medicines myself, for there is no apothecary attached to the dispensary. I consider the type at the recent outbreak far more malignant than at the former. The cholera ceased on the 21st January, 1867, and the last case was a fatal one. There were in my district 125 cases of cholera, and seven non-dispensary cases, and 115 cases of diarrhœa. Of the 132 cases 75 died from cholera. 70 of the cases that died were dispensary cases, and one case of diarrhœa died. I was nine days ill—from 16th December to Christmas day—when I resumed duty. My attention was then called to the paragraph in the *Irish Times* of the 31st October, stating that the cholera had abated in the township. I had made no such report, nor had the other medical officers, who were my assistants, and could not do so. The township is exclusively in my district. I attended the meeting of the 3rd November, and found the committee assembled, and Mr. Jackson presided. When I went in an observation was made by Mr. Breslin respecting the letter I had written, which, he said, was calculated to injure the town and create alarm—that he had received intimations from Lady Walsh, and ladies of distinction, and that when my letter was read he had no doubt these people would decline to come to Bray. Mr. Hudson said, "there was an end to the after season of Bray." Mr. Jackson said, "the town would be emptied." I said nothing. When there was a pause, I said I considered I had a perfect right, as a medical officer of the district, to contradict so great a falsehood, as it was published with the sanction of my authority, and as I had previously drawn up a report stating that cholera had re-appeared; and I considered the denial of the statement in my report attributed falsehood to me, and that was my only object in taking notice of such a mis-statement; that it was not my interest to injure Bray in any way; that while I considered that the committee had no right or jurisdiction to prevent my writing, I was ready and willing to say that for the future I would take no notice of such reports; and that, although several such reports had appeared before in that paper, but not purporting to be with my sanction, I, therefore, took no notice of them, and I would not take any more notice of them. Mr. Verner said "that he considered the statement of Dr. Whistler so straightforward and gentlemanly that we should take no further notice of it, and the matter should drop." That was assented to by the committee, and there was not a single word or resolution whatever of censure or otherwise mentioned. After that statement they all seemed perfectly satisfied with what I had stated. No censure directly or indirectly, was conveyed. No one cautioned me to write no more. They appeared all perfectly satisfied with my assurance, and there was no more about it. My next report was the 5th Nov., asking for leave of absence, on account of laborious duty. [Read.] That report was true, and I was suffering severely from intense anxiety, from overwork, and from the wretched and deplorable scenes of misery I had witnessed. My health, bodily and mental, was injured, and I attribute my subsequent illness in December to over-work. No one but a medical man knows the anxiety and labour of attending cholera patients, who must be seen repeatedly. In consequence of its being covertly stated behind my back that I had exaggerated, I prepared the nominal return of names, ages, duration of illness, residences, and results, &c. The permission was refused. There was no censure whatever. Mr. Hudson stated he never heard of so monstrous a proposition, and I was very uncourteously refused exemption from night duty. I did not miss a meeting, or omit to attend the meetings, up to the 13th of November. It is not part of my duty, as a medical officer, to attend those meetings. I was not present at the meeting of the 13th Nov., for I went at nine in the morning to the dispensary, and was there occupied till a quarter-past eleven, and with patients outside until a quarter-past two P.M., and would have had to neglect serious medical duty if I had attended the meeting of committee, which took place at one. I felt so exhausted from want of food and toil that I went home, thinking that the committee meeting was over. No censure on my conduct was ever, directly or indirectly, conveyed to me. The ordinary meaning of the words, "So that I am now in a position to state that Mr. Dease had no foundation whatever for advancing such an imputation," is that he laboured under a serious mistake when he made such a statement; and that was the meaning I attached to it in a letter which I subsequently wrote to Mr. Dease. I met him in the street, and Mr. Jackson said I was foolish to take notice of the letter, as no one in Bray minded what Mr. Dease said or did. I said I was on my defence, and I had to defend myself against such an imputation, and that I was ready to do anything consistent with the preservation of my character.

Cross-examined by Mr. EXHAM, Q.C.—I explained to Mr. Jackson that I could not withdraw that letter. I left the house with the impression that the matter might yet be arranged. Dr. Leney, I think, was there, but we did not compare notes. There was no one there that day (30th October) that I did not personally know. Dr. Leney had nothing to say to some portion of the township at that time. Dr. Leney's report on the 29th is that there were no fresh cases of cholera in his district. The districts are quite distinct. I was not aware of his return at the time I wrote.

At the close of the defendant's evidence, the jury stated that they had made up their minds, and were prepared to give a verdict.

Mr. PALLES, Q.C., on behalf of the defendant, said that, after that intimation, he would not examine Sir George Hodson or any of the other witnesses in attendance, nor would he himself think it necessary to address the jury.

Mr. EXHAM, Q.C., then addressed the jury on behalf of the plaintiff, and stated that if Dr. Whistler had merely conveyed by his letter that Mr. Dease had committed no more than a mistake, or if he had filed a plea denying that the letter was a libel, and that he imputed nothing more than a mistake to Mr. Dease, the jury would never have heard of the trial, but instead of that he filed a plea of justification, in which he imputed to Mr. Dease deliberate falsehood made in bad faith to injure him. Counsel most strongly insisted that if the jury found the letter a libel upon the interpretation put upon it in the summons and plaint, they must find for the plaintiff, for no jury could venture to hold that a plea of justification had been proved in the face of Dr. Whistler's own statement, that he did not believe Mr. Dease capable of stating what was false, or that he would do so for the purpose of injuring him. If they found that the letter was no libel, then, though they found for the defendant on that question, still there should be a finding for the plaintiff on the plea of justification. With regard to Mr. Dease's statement that Dr. Whistler had been censured by the committee, that statement had been confirmed by the witnesses examined in support of the plaintiff's case, although he (Mr. Exham) would agree with the jury in disapproving of the conduct of the committee towards Dr. Whistler; but that was not the question they were trying.

His LORDSHIP charged the jury. In the course of his observations, his lordship said it was gratifying to know that, whatever way the verdict should go, both gentlemen would leave the court without the slightest imputation on either of their characters.

The jury found that the letter was not a libel, and that it did not bear the construction imputed in the summons and plaint. They also found that the defendant was not censured at all by the dispensary committee. They found for the defendant, with sixpence costs.

His Lordship then stated that he hoped, at the conclusion of the case, that his opinion in the following matters might in some way be conveyed to the Poor-law Commissioners. His opinion was, that he perfectly agreed with what had been stated by counsel at both sides in the progress of the case, as to the inadequate remuneration of Medical Officers, and read from his notes the following testimony, given by the defendant during the course of the examination relative to the state of his health at the time he sought for leave of absence from night duty:—"My health at that time was invaded. I most unquestionably attributed my subsequent illness to over-work. No one knows the labour and anxiety of attending cholera patients. They are not cases in which you may attend one day and go again on the morrow. The patient may die in a few hours, and must be seen repeatedly."

Counsel for the plaintiff—Mr. Sergeant Armstrong, Mr. Exham, Q.C.; and Mr. Dames. Attorneys—Messrs. Meade and Collis. For the defendant—Mr. Dowse, Q.C.; Mr. Palles, Q.C.; and Mr. Wilson. Attorney—Mr. William Fry.

ROLLS COURT, DUBLIN.

Carmichael's Trusts *ex-parte* the President and Secretary of the Royal College of Surgeons.

Mr. Lawson, Q.C., applied on behalf of the above officials for instruction under the advice of the court as to the trusts of the will of the late Surgeon Richard Carmichael. The testator had, in a document called "The Sequel," set out the trusts of a £3000 which he devised to trustees to pay over to the applicants. The latter were directed every fourth year out of the accumulations of the income derivable from the said principal sum to offer two prizes of £200 and £100 respectively for the first and second best essays on subjects therein enumerated, and calculated to benefit the medical profession. Directions were also given as to the advertisements beforehand, and the Council had the power, if the essays were not of sufficient merit, on any occasion to withhold the premiums, and give double prizes on the next contest if the essays should be worthy of such addition. The essays were to be read at stated times, printed, and so many distributed gratuitously before sale of the rest; and the testator then provided that if the Council should neglect thus to deal with the interest of the fund that the accumulations of interest should be given to the Medical Benevolent Fund, and that his trustees, when handing over the fund to the Council, should see that this was legally provided for. In 1855 and 1858 they advertised for essays, and they have again done so this year. The essays sent in in 1856 and 1859 were not deemed worthy of any prize, nor was a double prize offered on occasions after the first. In 1865 Dr. Churchill and Dr. M'Clintock, the Secretaries of the Medical Benevolent Fund, applied for the accumulated interest, which the Council were willing to pay to them, but they were advised to come before the court on the questions of construction of the clauses of the will.

SECOND DAY.

Mr. F. W. Walsh, Q.C., appeared on behalf of the Medical Benevolent Fund respecting the above petition, which had been partly heard on the previous day.

His Honour said he had since considered the matter, and it seemed to him that the Council of the College of Surgeons had not carried out the intention of the testator, beyond merely advertising for essays.

Mr. Walsh—And reading them when sent in.

His Honour—The testator, however, had intended and directed, that if the rewards of £200 and £100 were found to be not sufficient at the first, no rewards should be then given, but these rewards might be doubled the next time to encourage competition, for which purpose the interest should be accumulated for the eight years. It had so happened, that at this second trial, the merit was again insufficient, and so no premiums had been awarded. The result of all this was, that there had been a total failure of the objects of the bequest. On the whole, he was of opinion, the best way would be to act on the authority of Belvidere's Trusts (2 Ir. Eq. Reports, 354), and refer it to the Master to settle a scheme for the administration of the fund.

Mr. Walsh asked would his Honour think it right to direct the council to offer double rewards?

His Honour said he would be very slow to do that.

Mr. Walsh then asked that so far as the interest was accumulated it should go to the Medical Benevolent Fund.

His Honour was not satisfied that the case warranted such an order, for the bequest over was in case the council should "neglect to comply" with the rules laid down. He yesterday had expressed a doubt if there had been any such "neglect."

Mr. Edward F. Litton, for the council, said Mr. Walsh's rights, as to the accumulations of interest, would not be prejudiced by standing over till the Master had made his report.

Mr. Walsh contended that the council were bound to distribute the interest at the end of four years, and, failing that, at the end of eight years, but at no other time. They had not done so, and, therefore, the Medical Benevolent Fund had acquired a right to the accumulation, and accordingly the scheme of the Master should be directed to refer only to the future interest of the fund.

His Honour said the council had already gone to much expense in advertising, &c., and which the Master should be able to reimburse them, as such would fall within the *cy pres* scheme. All that could be done now as to the past interest would be to have a sum paid on account to the Medical Benevolent Fund, and that would be useless.

Mr. Walsh still pressed for a declaration that the Medical Benevolent Fund was entitled to the accumulated interest.

His Honour, however, said that he would direct a reference to the Master to ascertain a scheme for the future administration of the fund, which direction of reference would preclude any dealings with the past accumulations. When the report should come back, one order could be then made, including every portion of the funds in question. The Medical Benevolent Fund should have liberty to attend in the office, and the cost should stand over till the final order was made.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

July 1st.

Dr. Jenner, F.R.S., President, in the chair.

At a more than usually full meeting, three papers concerning the terrible disease now exciting so much interest in Dublin, were read, and subsequently the nature of the malady gave rise to a lively and interesting discussion, which, however, did not seem to throw any fresh light on the subject.

The first paper was read by Dr. Marston of the Army Medical Department. He gave an account of twenty-five persons who had been attacked with the disease; of these, nineteen were soldiers, two women, and four children. A considerable number of the soldiers were young. The cases were very briefly reported, but a few careful details of them being given, a point of considerable interest was noted in more than one case, viz.—that the urine was generally of light colour, non-albuminous, and of specific gravity—about 1010. No cause for the sporadic origin of the disease was assigned, but it was ascribed to an "epidemic constitution." Dr. Marston said that the Dublin butchers have found their pigs affected with a like disease, which killed forty of them belonging to one man. The idea that the disease is contagious, seems to be discredited by the fact, that the soldiers of the flying column were in an especial degree its victims. The symptoms were remarkable for their number and variety, but appear to be chiefly due to two proximate causes—a blood-poison, and in-

flammation of the cerebro-spinal nervous centres. The spinal seemed to predominate over the cerebral symptoms. The number and extent of the purple spots presented no obvious relation to the degree of intensity of the cerebro-spinal inflammation observable. The perspiration was acid.

The second paper was communicated by Dr. Mapother, of Dublin, and as he was not present, it was read by Dr. Milroy. The following is a brief abstract :—

MALIGNANT PURPLE FEVER.

The author, who had made the communication at the request of the Society, first detailed the history of the outbreak from March 18, 1866, to the present date, and stated that sixty-three cases had been recorded in the Dublin district, and about thirteen over the rest of Ireland, as it had appeared in Tullamore, Birr, Mitchelstown, Rathcoole, and Clondalkin. The topography of the disease was illustrated by maps. In Dublin the greatest mortality, namely fifteen, had occurred in April. In Chelsea the disease had distroyed one life. As "febris scorbutica" the malady had probably been known for centuries. If it be determined that the disease be essentially a lesion of the vaso-motor and cerebro-spinal systems, Dr Mapother suggested the term "neuro-purpuric fever." He described two types, the more grave being a blood-poisoning or toxæmic lesion of the vaso-motor system, the milder being scarcely different from sporadic cerebro-spinal arachnitis. The first was indicated by chilliness, vomiting (owing to stimulation of the vagus nerve), constipation, but in one case melœna had been seen by him, and especially purple blotches of dissolved hœmatin in and under the skin, averaging in size that of a pea.

Thermometric observations had shown that the heat of the surface differed slightly from that of health. He detailed one case, in which a healthy woman, aged fifty-nine, had sunk last Thursday in twenty hours. Prostration and extensive appearance of blotches, with some stupor, was early perceived. In this case there was the dietic peculiarity that she would never eat vegetables. In these sudden cases congestion of the cerebro-spinal membranes and lungs, with tarry blood, was the only *post-mortem* condition. To illustrate the second form of the disease, a case from the report of the surgeon of the 52nd regiment was quoted, in which the symptoms and morbid appearances were those of inflammation of the cerebro-spinal membranes. Death occurred on the 15th day. Violent cerebro-spinal pain, increased sensitiveness and tetanoid contractions, in some cases greater than that of tetanus had characterized other cases. Paralysis, defective nutrition, and low inflammations in the eye tunics, almost exclusively the right, had been frequent during recovery.

In such cases the cerebro-spinal membranes had shown every trace of inflammatory action. The most rapidly fatal case of the first form had destroyed life in four hours and three quarters, from perfect health, but in forty-one cases the average duration was forty-two hours. The mortality had exceeded 50 per cent. Of 41 investigated cases 6, 6, 6, and 8 had occurred in the quinquennial periods from 5 to 20, which proneness the dominant action of the sympathetic, and the abundance of fibrin from the removal of temporary organs, would explain. 21 of the deaths were in females ; 20 in males. No rank of life was exempt, and the only cases in which contagiousness could be believed in were two, in which the sanitary circumstances were of the worst kind. The promoting causes of purple fever and cholera are presumably similar, for all the towns in which the former had appeared had suffered last year from cholera. If the morbid poison of purple fever was that of typhus, the lesser contagiousness would be due to the rapid death, for it is during the eliminative stages that the latter most readily spreads. Mental disquietude, such as wakefulness—that among the troops who pursued the Fenian rebels, the regrets of recruits and the anxiety of soldiers in American war, appeared to have been exciting causes. The unparalleled coldness and prevailing east wind of March, April, and May, promoted the disease. Fever had been notably less, but measles was most prevalent and fatal.

For the past eighteen months "purples" had been most fatal to pigs, and Dr. Mapother detailed many of the phenomena of the epidemic, to show its analogy to the human malady. It had been prevalent in 1846, when the former attack of cerebro-spinal disease was present. Having alluded to other zymotic diseases, now rife, he expressed regret that there were no facilities for the study of epizootics. Previous epidemics of cerebro-spinal arachnitis were then contrasted ; those in 1839 in French garrisons, in the Dublin Workhouse, in 1846, and in Dantzic in 1865, being shown to be purely cerebro-spinal, whereas, the outbreaks in the United States were, just as in the present Irish disease, of two forms, malignant purpuric, and cerebro-spinal. With regard to the nature of the disease, Dr. Mapother urged that all phenomena of the rapid blood-poisoning form might be explained by depression, or arrest of the functions of the vaso-motor nerves, which especially abound in and under the arachnoid, and the superior activity of this system in children, might explain their great proclivity. That want of vegetable food, the cause of scurvy, may be a main promoting cause of this disease, would appear from its occurrence during the potato famine ; and now, when that most anti-scorbutic food and green vegetables were so high-priced, that the poor fed on bread and Indian meal principally. Purpura and scurvy were more frequent now than for many years. The spring and early summer months were the prevailing periods of the present and former epidemics, and then the potato was scarce and bad. The rich were occasionally victims to the disease, but among them the habit of abstaining from fresh vegetables was not infrequent. Typhus implanted upon a scorbutic person would kill at once, and Dr. Mapother thought that the appearance of purple blotches in the present, and not in the epidemics of meningitis in other countries, may be due to dietic peculiarities. Petechiæ are far more frequent in typhus in Ireland than elsewhere.

To aid recovery, vaso-motor stimulants, such as ergot, belladonna, or cantharides, were worth trial, as were also stimulants and digestible nutrients, like solution of beef in dilute hydrochloric acid.

Although he regarded the disease as slightly, if at all, communicable, he had directed disinfection and isolation; but if the dietic point he had touched on were proven by his further investigations, the disease would be one of the most preventible which we encounter.

The following is a short summary of the third paper, which was read by Dr. Lyons :—

ON THE RECENT OUTBREAK OF "FEBRIS NIGRA" IN DUBLIN.

The author communicated the notes of several cases, and exhibited specimens of the spinal cord from two cases. He proposed to designate the disease "*Febris Nigra*." He believed that the malady is allied to yellow fever, cholera, and in a certain sense to typhus, and to other diseases in which, without necessary physical lesion or profound prostrating effect, is exercised on the nervous centres, and through these on the blood. As to the causation of the disease, he referred to the general sanitary state of Dublin, which he described as bad as bad can be. When cases of this disease occurred in 1866, Dr. Lyons called the attention of the Lord-Lieutenant and local authorities to them as an indication of a marked change in the epidemic constitution, and predicted an epidemic possibly of cholera, which came in due time. This year he made a similar prediction, and he remarked that at least one case of cholera had already occurred in Dublin.

Dr. CRISP, referring to his patient, who, as reported in the *Lancet*, died at Chelsea, June 17, said he was quite pulseless; that there was hardness of the cervical muscles, and subsultus tendinum, but that the most distressing symptom was extreme pain in the legs about the hams. He stated that when pigs eat the viscera of animals which have died of splenic apoplexy, they die of cerebro-spinal meningitis. He expressed the opinion that the disintegration of the blood, said to have occurred in his patient, and in those dying in Ireland, "is caused by some electric influence."

Mr. RADCLIFFE stated that a child attacked with the disease died at Bethnal Green, within five hours of seizure, on the 27th ult.

Dr. BURDON SANDERSON characterised Dr. Mapother's theory, that the two types of the disease are due to two distinct proximate causes, as a most improbable solution. He also expressed his opinion that the post-mortem examinations had been too few, and too inadequately made, to establish the identity of the disease in Ireland with the epidemic recently prevalent in the North of Europe.

Dr. MARSTON contraverted the suggestion which had been made by Dr. Mapother, of a connection between scurvy and this disease. The question was, however, not to be lost sight of. It seems also to be markedly differentiated from typhus, in respect both to its etiology and its extreme destructiveness.

Dr. CAMPS entirely concurred in the opinion of the last speaker, and thought all the symptoms were referrible to the nervous system.

Dr. STEWART was struck by the fact that a large number of the better class were attacked both in Ireland and in America

and observed that all the earliest cases in America were of persons exposed to hardships, as campaigners. He discredited the notion that there is any essential relation between the disease in question and scurvy or typhus. There is never the true typhus eruption. During the last two years he had observed the occurrence of spots in various diseases, especially in cases of articular rheumatism. During six or eight months in 1858, there were cases of this kind in Middlesex Hospital, which were then called erythema-rheumatica.

Dr. YANDELL, an American physician, stated that ten years ago the deer which abounded in the Southern States were almost wholly destroyed by a disease called "the black tongue;" that recently the pigs have been carried off in such numbers as to have contributed greatly to the famine which has prevailed in the Southern States, by a disease called "hog cholera," or "blind staggers." Sometimes it was associated with diarrhœa, sometimes not. The common domestic fowls, turkeys, and ducks, were affected in the same way.

Dr. BOWEN reported the summary of information obtained by him from conversing with three Dublin physicians, who, besides stating their impressions of the nature of the disease, said that a large number of persons are affected with minor attacks, just as during a cholera epidemic many who do not suffer from vomiting or diarrhœa experience disorders, seemingly, of the nervous system. Dr. Bowen also mentioned a report that at the present time a similar disease is proving extremely destructive among the Arabs in the Valley of the Euphrates.

The President, Dr. JENNER, adverted to the obviously great distinction between cerebro-spinal meningitis and typhus. The latter attacks children very rarely, and infinitely more rarely kills them. Moreover, in cases of typhus he never saw a trace of lymph, or pus, at the base of the brain. Certain cases, small-pox and scarlet fever, kill in a few hours; when they do so they are characterised by ecchymoses and effusions, having some resemblance to those of the Dublin cases above described; and in some cases of small-pox there is inflammation of the eye-ball, a feature characteristic of the disease now known by so many names, none of which he said are good.

Correspondence.

PREVENTION OF VENEREAL DISEASE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In reading a letter which appeared in last week's MEDICAL PRESS AND CIRCULAR, signed "E. L.," on prevention of venereal disease, one cannot help being struck with the novelty of the idea of examining men as well as women, with the view of reducing venereal diseases. Theoretically speaking, the idea is good, and it does certainly strike at the root of the evil, but it could never be carried out, for many reasons. In the first place there are 1332 brothels known to the police, besides 516 public-houses and coffee-houses used for immoral purposes, and the prohibition of their use only during certain hours would never be adhered to. Fancy a Surgeon attached to each house to examine men frequenting it from four o'clock in the afternoon until midnight! That proposition could never be carried out, for where could one find 1848 medical men for such a purpose, and how could they be paid? If men are to be examined at all, it cannot be by surgeons appointed to every house, but by certain parties, and who those certain parties are the reader of this letter cannot require telling. Unfortunate girls have themselves to look out for, and they ought to exercise some little caution against infection whilst carrying on their wretched calling. At the same time the public want protection from certain abandoned women, who, having no remnant of any good feeling left, wilfully and wantonly spread disease amongst the opposite sex day after day and night after night. "E. L." says that submitting girls to police regulations is degrading. I quite agree with him there, for I think to force any woman who may be suspected of being a courtesan by the police to compulsory inspection is very bad and very unjust. If such a law were to come into force, it would be hardly safe for any young woman to walk in the streets alone, for she would be liable to be addressed and apprehended by any policeman who might take into his head that she was no better than she ought to be. To put unfortunates under police surveillance is quite out of the question. In England it would never do to thus infringe on the liberty of the subject, though the object in view might be the prevention of venereal disease. But I think that for the mutual benefit of all parties no unfortunate should object to medical inspection, which might be done in the following manner:—Inspecting surgeons might be appointed by Government, and towns divided into districts, and then all brothels within such districts should be licensed, and the inmates examined twice a week by the Inspecting Surgeon, who would give a clean bill of health in all cases when possible, or report disease to the proper authorities, and refuse to give a certificate of such a woman being free from disease. Of course, these inspecting surgeons being well-known, many a girl, who, without being a regular well-known street-walker, yet follows the same calling on the sly, living in private apartments, would avail herself of getting examined, and reported free from disease, for the sole purpose of showing her *friend* her clean bill of health. If all courtesans were known to be regularly examined, and a clean bill of health given when it could be done, you may depend upon it that every *roué* would avail himself of it, and require to see the date of the last inspection, which, if a girl refused to show, he would instantly suspect something wrong with her, and, on the other hand, if he did not require or care about seeing her bill of health, she might suspect that all was not right with him.

For further protection, any woman found guilty of altering the date, or otherwise tampering with her bill of health, should be subject to any penalty, fine, or punishment, as the law might direct.

Under the above regulations, there is very little compulsion, those women only being compelled to be examined who live in licensed houses. I feel assured that the idea of licensing houses for immoral purposes, and certifying to the cleanliness, or, rather, freedom from disease, of individual persons, will meet with opposition from every quarter, especially amongst the ultra religious circles, but be it remembered and borne in mind, that it is for the welfare of the body, and not for the good of the soul, that the Venereal Committee of the Harveian Society are urging upon Government the necessity of medically inspecting regular prostitutes, with a view to the prevention of venereal disease. Medical inspection, carried out as suggested above, must tend materially to diminish venereal disease in every shape, and amongst all classes of society, without infringing upon the liberty of the subject, or yet submitting unfortunates to what would be most repugnant to the feelings of every Englishman or woman, "the immediate surveillance of the police. In Continental hospitals, it may be argued, that as bad cases as possibly can be of syphilis are to be met with, so it is ever likely to be. The Venereal Committee do not think they are going to eradicate venereal disease *in toto*, but only by proper caution it is thought that its spread might be arrested, and in time the disease itself considerably lessened, and they have every encouragement, for Dr. A. Vintras has proved that venereal disease amongst registered women in Paris is only 1 in 196, whilst among clandestine women who escape all supervision, it is one in seven. And then, again, in New York, where no registration exists, it is even worse, being one in three. The number of cases admitted into the Lock, the Metropolitan, and Provincial Hospitals, shows that syphilis, &c., is no uncommon thing, and the sooner Government exercises some stringent measures to reduce its spread the better, however shocking it may appear to some fastidious persons the plan of registering women for immoral purposes, and inspecting them for the sake of the public health.

Should this letter meet the eyes of any person or persons in power, and could any hint be taken from it, or any good result follow, it will have more than answered the utmost expectations of your obedient servant,

HENRY W. WILLIAMS, M.D.

Guilsborough, 2nd July, 1867.

THE SPAS OF LISDOONVARNA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Having just returned from the Spas at Lisdoonvarna, it occurs to me that a few hints as to the best means of reaching them, and as to the accommodation which a patient may expect upon arriving in their vicinity, may not be uninteresting to your readers, nor destitute of utility in enabling them to afford some very necessary advice to their patients.

Lisdoonvarna is a place worthy of the attention of the profession. It is situated at a little more than twenty miles from Ennis, in the County of Clare. It is on a lofty table land,

traversed in various directions by small streams, which struggle along the bottoms of deep ravines, that sometimes constitute miniature dargles, although I cannot say that beautiful scenery is an ordinary characteristic of the district. The air is pure and bracing, impressing one with a sense of salubrity.

The spas of Lisdoonvarna have been long known to the peasantry of the surrounding counties, who tell wonderful tales of the surprising cures effected by their use, and we met here several hawkers, who make this neighbourhood a part of their route every season, although from the scantiness of the population, their profits must be very small; and one woman told us that she was in the habit of coming here every summer for the last thirteen years. The gentry and the Profession have only learned the value of these spas during the last few years. Some account of them was given in "Knox's Irish Watering Places," and Professor Apjohn has published an excellent analyses of the waters of the different springs, to which I must refer for minute particulars.

The springs may be divided into the sulphureous and the chalybeate. So far they resemble the Spas at Harrogate, but in many important matters they differ from them. Thus the sulphureous waters at Lisdoonvarna tend to produce constipation, and it is necessary that the users should bring with them some ordinary aperient medicines, such as the so-called antibilious pills, or seidlitz powders, to obviate this effect. They are alcaline and mild, and do not produce, either externally or internally, those stimulating consequences, apt to follow the employment of other sulphureous waters. The chalybeate waters contain much more iron than the Harrogate, and there is one especially which is commonly called the magnesian spa, which, from the peculiar combination of its constituents, happens to be unusually agreeable and effective.

As these spas are likely to attract an increasing interest on the part of the profession and the public, it is desirable that the physician who prescribes them should be in a position to explain to his patients the itinerary he would have them to pursue, as well the hopes of accommodation which they may entertain upon their arrival.

As far as Ennis the route is all plain sailing (you may perceive I am becoming nautical—fresh from the cliffs of Mohr, and the view of Achill Islands). The best train to Limerick is the mail, which at present starts from King's Bridge at twenty-five minutes to nine A.M., and arrives about twenty minutes after one P.M. The corresponding train to Ennis leaves Limerick at a quarter past two, and reaches Ennis at 3·35. These arrangements are of course liable to change next month.

But having arrived in Ennis, the question arises—how to proceed further? For strong healthy persons there is a long outside car-like Bianconis, and perhaps instituted by that enterprising individual to whom Irish tourists are so much indebted; but strong healthy persons have little or no business at Lisdoonvarna, and a drive of more than twenty miles over a somewhat roughish road, and through a very bleak and uninteresting country, would not be exactly the way to raise the spirits, or strengthen the hopes, of a feeble, desponding invalid. My advice to such would be to hire a carriage—the cost is about twenty-five shillings, a shilling a mile, and threepence to the coachman. But it is necessary to order the carriage the day before, for the number in Ennis is limited, and they are very much employed, either for weddings, or for funerals, or the assizes, or Lisdoonvarna itself (I have heard all these assigned); and to have to stop a night at Ennis is the delay of a day, and a disappointment. The carriage may be secured, however, by a letter or telegram to Carmody's or Curtin's hotel.

I have said the country is very bleak and uninteresting. For the first half of the way to Lisdoonvarna you have on either side of the road enormous crops of limestone, rarely rising more than three or four feet above the level of the soil, flattened at top, and traversed by fractures pointing out a rhomboidal structure, similar to the cleavage so usual in calcareous spar. The loose stones are collected into open-work walls, and a few sheep and goats graze on the spots of greenery between the rocks. There are the ruins of a mansion or castle, belonging to the O'Briens, called, as well as I could make out from a countryman, "Nervane Castle," on the road side. This castle, having three gables and a square high tower at one side, pierced with holes for musketry, and two rows of windows in the mansion house part, belongs, I think, to the time of James I. A ruined church also on the right, might, amidst this barrenness, excite curiosity, and one might perceive through the apertures, once windows, some monuments, deserving perhaps, at moments of leisure and inclination, a further examination. Afterwards you find yourself passing over a bog deeply cut by neighbouring tenants who have rights of turbury. This continues for miles, and at last you reach meadows and trees, and a reasonable, inhabitable kind of country, which leads you to the Bridge of Lisdoonvarna.

This bridge is of importance, and I'll have to return to it, for it must serve as a stand-point from whence to survey the localities that will have interest for you. But at present I am to suppose you hungry and tired, and wishing for refreshment and rest. Well, then, there are two inns—hotels I suppose I must call them—Reidy's and Ryan's. I don't wish to be partial, but I suspect that Reidy's is the one you'll stop at. It is the nearest, and you will at least get there a very tolerable dinner and good advice. I cannot promise that they can afford you beds, and I am almost sure they will not have a separate sitting-room for you, for the season is now approaching its fullest, but there is a very passable coffee-room, and a sitting-room for ladies. Mrs. Reidy will probably tell you that she can give you apartments in the "lodge"—a house some distance off, in which you will have to market for yourself, although she provides attendance. And I am given to understand that she has other houses at her disposal.

I would advise you not to dismiss your carriage until you have ascertained whether you can obtain accommodation at Reidy's; and if not, you had better drive at once to Miss Ryan. Neither hotel can be said to be remarkable for the excellence of its furniture. It would not be fair to compare them with the Westminster or the Louvre, and in fact Reidy's is somewhat the more pretentious: but in both you find cordiality and civility; and in both you will be honestly informed when the beds were last slept in, a fact not easily to be ascertained in establishments of a grander appearance. Miss Ryan's house has round it some space of grass land, on which an invalid may quietly saunter; and, moreover, she keeps a cow, and one has a chance of good cream, and sweet fresh butter. I see nothing to prevent a visitor being very comfortable in either of these houses, and if he cannot obtain accommodation in them, the proprietors will tell where lodgings can be obtained. In that case the lodger will have to *provide* himself, as it is called, and I find by inquiry that it is more economical to enter into an agreement with the hotel keeper for board and lodging. By this means, one can live in Lisdoonvarna at less than half the cost he could at the Crown or Granby. Perhaps the best way would be to communicate by letter with either of the hotel-keepers mentioned, stating the accommodation required, &c., before setting out for the west.

Now, to find your way to the spas, you must return to Lisdoonvarna Bridge, at right angles with the end of the Ennis Road, by which you were first conducted to the scene. Standing on this bridge, with your face towards Reidy's, you have their shop opposite to you, in which everything is sold, from a pennyworth of snuff to a five-shilling bottle of port or sherry, including bacon, tobacco, tea, whisky, &c. To your left is a baker's at the corner of the Ennis Road, and to your right is a butcher's. Looking steadily towards Reidy's shop, you may perceive two roads at an acute angle, forking front and rear of the hotel, which lies behind the shop. The road to the right leads to Ballaghaline and Ennistymon; that to the left to Glenevan, Kilfanora, and Corrofin. Turning round on the bridge, so that your back is opposite Reidy's shop, you see before you the road leading to Toovarragh, on the left of which is the Catholic chapel, and, at the distance of about three furlongs, the post-office. This distance is very inconvenient to the visitors, but a separate bag is made up at Ennis for all letters directed to Reidy's hotel, which are thus enabled to be distributed half-an-hour before those passing through the post-office. The post comes in at 10 A.M., and goes out at 3 P.M. Dublin letters are retained a night at Ennis. The Reidy's are very civil in affording the privilege of their special bag, not only to their own guests, but also to the other visitors at the spas.

Upon walking about a furlong along the Ballaghaline Road, you come to a bridge, beside which on the right is the magnesian spa, and a little further along the stream, the most favourite iron spa. An old woman lives in a cottage near these spas, who has the keys, and will supply a tumbler for drinking for a small gratuity. Crossing this bridge, and continuing along the Ballaghaline road, you will shortly arrive at the constabulary barracks to the right, opposite which is a road leading to the church, which is built on a plateau near a ravine, at the bottom of which is a sulphur spring, called by the country people "Dr. George's Spa," and a little above

it issues from another stratum of schistose rock, a chalybeate. The sulphur spring here is weak and milky, from deposited sulphur. Upon returning to the constabulary barracks, and walking farther along the Ballaghaline road, you arrive at another bridge, before which the Ennistymon road turns off to the left, some distance along which is a bridge with two arches, which presents to the peasantry a resemblance to a pair of spectacles, and they have accordingly denominated it in their humour the "Spectacle bridge." Near this is another celebrated iron spa, but which, from its distance, is but little used.

Returning to Lisdoonvarna Bridge, you can pursue your way along the Glenevan-road, passing to the left in front of Reidy's hotel, which will lead you at the distance of about a quarter of a-mile to another bridge, beside which is the principal sulphur spa—the favourite spring of the district. The reason of my taking the trouble to point out the locality of these various spas is that in the absence of any regular period of attendance, the distance of the springs from each other, and the want of that discipline which has gradually grown up at all the old-established watering-places, it is very difficult for a stranger at first to find his way to the spa he was recommended, particularly if he has no friend on the spot to direct him.

It remains only to say that if the patient requires a carriage to return to Ennis, he can obtain one by writing to Markham's hotel, Ennistymon, about seven miles off; or he can get any information he wants by applying to Mr. Markham's brother, who keeps the bakery already referred to, at the corner of the Ennis road, next Lisdoonvarna Bridge.—Your obedient servant, JOHN ALDRIDGE.

P.S.—The foregoing was written in a hurry immediately after my return to Dublin, but being late for insertion in the MEDICAL PRESS AND CIRCULAR, I take advantage of the delay to say a few words to the landed proprietors of Lisdoonvarna, and also to the innkeepers. To the former I would say the excellence of the water is admitted, and the locality may be made a mine of wealth if properly managed. But it has some faults which require to be remedied. First and chief, there is not a sufficient supply of the waters *collected* for the use of the visitors. This is entirely your fault, for nature supplies abundance of these medicinal liquids, but you have made only little miserable pits for collecting them, and permit the greater part to run to waste. You ought to employ a competent engineer to guide you as to the way of soliciting them into capacious reservoirs, which, in time, you might convert into handsome stone basins. Secondly, the place will never be complete without baths; and these would require a decent building, especially near the sulphur spring, with an elevated tank for douches, and means of raising the temperature of the water, both for these and ordinary bathing. The ordinary metal baths, sold at the ironmongers, would answer even better than the expensive marble baths, or those lined with tiles, which, being bad conductors, heat slowly, and are consequently uncomfortable. A clean waiting-room adjacent is also necessary. Some kind of Conversation House near the hotels is desirable, in which might be a small circulating library, and a room for occasional concerts or other recreation. Lastly, the proprietors ought to do something in the way of belts of trees to protect from the keen winds to which this high table-land is occasionally subject; in this they might learn much from the example of Harrogate.

Now, to the hotel-keepers I would say, proper respect for your lodgers require some better means of conveyance than the dislocating, high outside cars, with bad cushions, rough springs, and steps so elevated that it would almost require an acrobat to mount them. I have seen near Beaumaris neat light phaetons, drawn by jennets, which, I was informed, cost less than £20—phaeton, jennet, harness, and all. Could not something similar be obtained for Lisdoonvarna? Surely you are not willing to be beaten by the Welch.

But I have strong hopes that these and many other improvements will be in time carried out. J. A.

A SOCIETY FOR THE RELIEF OF THE WIDOWS OF POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have withheld this, my second letter, that I might be enabled to learn from the proceedings of the late meeting of the Medical Association of Ireland if any, and what steps were suggested or taken by them, in reference to a *certain annual provision* for the widows and children of such Poor-law medical officers as have inadequate means for their support. I find that no reference was made to the subject, the meeting confining itself to the arrangements connected with the Medical Benevolent Fund Society which, though very useful, is admittedly insufficient to meet the necessities of the numbers that from year to year are left widowed and fatherless by the demise of the proportion of the 800, or 900 Poor-law medical officers, who were hitherto their only support. In THE MEDICAL PRESS of the 21st of January, 1864, you observe, "The Medical Benevolent Fund can never be adequate to provide for even a moiety of the distress which has existed amongst the families of deceased medical men." It is only necessary to read the report and the proceedings of the late meeting to confirm that opinion, as the Committee, whilst congratulating the Society on increased funds, observes that "the pecuniary aid extended to most of the claimants, instead of being, as it ought, liberal, is but a narrow pittance"—"but very rarely sufficient to be of any *permanent* advantage to the recipients."

Having further considered the subject, and obtained more information in respect to it, I beg to offer the following data and suggestions for the formation of a Poor-law Medical Officers' Annuity Widow's Society.

I have not yet seen the Poor-law Commissioners Report for the year ended September, 1866, but that for September, 1865, shows that there were then 785 dispensary medical officers, and that their salaries, including payments for vaccinations, amounted to £78,287 in that year. If to this be added payment for registration at, I hope, not less than an average of £10 for each dispensary district, or £7160, the whole would be an annual payment by Boards of Guardians to dispensary medical officers of £85,447. Mr. Cogan's return shows that there are 187 workhouse medical officers whose salaries amount to £13,883 yearly. I find that 85 of this class hold dispensaries. All may be thus classed:—

700	Dispensary medical officers at £109 each,	£76,300
85	Workhouse and dispensary medical officers at £183 each, . . .	15,555
102	Workhouse medical officers at £74 each,	7,548
Total 887	Total	£99,403

Total annual payments to Poor-law medical officers, or say, in round numbers, £100,000.

If, to create a fund, each medical officer pays one per cent., £1000 would at once be realised, and if two per cent. be deducted annually from the salary of each married, and one per cent. from that of each unmarried medical officer, assuming the former class to amount to 600, the latter to 285, about £1665 would be raised annually, and a beginning would be made with about £2665. This annual deduction from the salaries would provide £40 annually for about forty-two widows, leaving the £1000 untouched; but as the mortality of the medical officers, say from the ages of 25 to 65 would be two and three-fifths, or say three per cent., and as their wives would not have a higher mortality than two and one-fifth per cent., being almost invariably younger than the husband, in a few years the subscription would have to be increased, or the amount of annuity diminished, or assistance should be had from some other source. In any case care should be taken not to interfere with the means by which funds are had for the existing Medical Benevolent Society.

I learn from Mr. McEvoy, M.P. for Meath, and who deserves much credit for it, that £65,000 has been voted by Parliament to meet one-half the cost of the salaries of the medical officers of dispensaries, and of the workhouse schoolmasters and schoolmistresses, and that this fund is to be put at the disposal of the Boards of Guardians in saving of the Union rates. I would earnestly advise that it be understood by Government and Parliament that as much of this annual grant be added to the Poor-law Medical Officers' Widow's Annuity Society Fund, as these Poor-law Medical Officers contribute, say about £1665 annually. There would then be adequate funds to meet the payment of £40 yearly to each widow, or to her children, on the death of the mother, until, as is the case with the Irish Constabulary Widow's Society, the children reach eighteen years of age.

If judicious means be adopted it is not likely that Government would object to this appropriation of a very moderate portion of this Parliamentary grant, or to twice the sum, and it would be strange if the Poor-law Commissioners should not urge its adoption, as it would so much benefit the Medical Officers in their department.

It may be suggested that the existing Medical Benevolent Fund Society should rather have a portion of this Parliamen-

tary grant, and in that case it may be supposed that any other Medical Benevolent Society would be unnecessary.

But though the objects of both may appear to be the same, they are, in fact, very different. The existing society is intended, so far as it has means, to relieve the distress of *any* medical man, or that of his widow and children, so that the distressed of the whole medical population of Ireland may legitimately be claimants, though these claimants had never contributed to the fund. The Poor-law Medical Officers' Widow's Society would be for the benefit of the families of a certain number of individuals who contribute themselves, and thus make a moderate provision, not for themselves, but for their wives and children. Both societies ought to work harmoniously together, the one supplementing what was wanting in the other.

It may be supposed that it would be difficult to induce many of the Poor-law Medical officers to join such a society, but were a rule adopted similar to that which I stated in my letter in the MEDICAL PRESS of December 14th, 1864, very few, I think, would hold back.

Of course the rules and regulations of such a society should be carefully considered, and the proportion to be contributed would require good consideration.

As it is well-known that the medical relief which is afforded by dispensaries, and in the workhouse, fever hospitals, and infirmaries, constitutes a most valuable portion of the benefits arising from the Poor-law, Government and Parliament would probably not be over stringent in favouring such a society. In the year ended September 1865, the Dispensary Medical Officers visited 202,333 sick persons who were unable to leave their beds, exclusive of 635,800 others who attended at the dispensary depots. And the workhouse fever hospitals and infirmaries treated 62,291 sick, of whom 18410 were affected with fever and other contagious diseases ; 43,881 with other medical and surgical diseases. The benefits derived by the whole community from this extent of medical attendance by competent professional men will, it is to be hoped, be fully appreciated ; if it be, there will be no objection to giving pecuniary means to provide a fund for their distressed widows and fatherless children.

The whole cost of dispensaries in the year was £117,038 ; that of the medical relief in workhouses may be fairly estimated (it is not given in the report) at £60,000 ; making, for medical relief, about £177,000. I had hoped that the half of this would have been granted by parliament, *but "all in due time."*

Had I any influence with Government, Parliament, the Poor-law Commissioners, or with the Poor-law Medical Officers, I would earnestly press the consideration of some such society, as is above suggested, on their serious attention.—Yours, &c.,

DENIS PHELAN.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—On the 25th ult., at the annual meeting of the Fellows, more than the usual amount of business was transacted. There was no black-balling on the occasion, and so the only grumbling has been of that kind which has attached to the government of this antiquated Corporation for many years. The list of office-bearers for the year we published last week. The following gentlemen were promoted to the Fellowship :—

Dr. Russell, of Birmingham ; Dr. Wardell, of Tunbridge Wells ; Dr. Bridges, of Bradford ; Dr. Waters, of Liverpool ; Dr. Logan, Director General of the Army Medical Department ; Dr. J. Harley, of King's College ; Dr. J. Clark, of St. George's ; and Dr. Hillier, of University College ; Dr. G. T. Gream.

The following were admitted members of the College :—

George Fowler Bodington ; Stephen Monckton, M.D. ; Thomas Buzzard, M.D. ; William Henry Day, M.D. ; W. Ainslie Hollis, M.B. ; Richard Thorne Thorne, M.B. ; Walter Rickards, M.D. ; Prosser James, M.D. ; P. J. Hensley, M.B.

UNIVERSITY OF DUBLIN.—The following is the authorized list of persons on whom degrees and licenses were conferred at the "Comitia Æstiva. Habita tertio die Julii, 1867 :"—

BACCALAUREI IN ARTIBUS.—*Moderator Senior*—Guilielmus Bailey Wallace, *(sch.) Moderator Junior*—Ulysses Radolphus Burke. *Pensionarii et Sizatores*—Gualterus Hubertus Beaurepaire *(ex-sch.)*, Johannes Bell, Carolus Albertus Bestall, Johannes Bole, Johannes Boyle, Horatius Newman Brady, Guilielmus Dionysius Browne, Johannes Carter, Ricardus Guilielmus Henricus Dawson, Jacobus Stewart Sweete Escott, Eduinus Spencer Gough, Georgius Fred. Helm *(ad eundum)*, Carolus Kough, Robertus Mayer Linton, Horatio Edmundus Maunsell, Alfredus Lloyd Owen, Johannes Thomas Read, Jacobus Thomas Kennedy Reed, Guilielmus Kemmis Shortt *(n. f. sch.)*, Johannes Williamson.

LICENTIATI IN ARTE INGENIARIA.—Georgius H. D. Bayley, Edvardus L. D. Hunt, Carolus Vernon D. Mac Ivor, Jacobus Thomas Kennedy Reed.

LICENTIATUS IN MEDICINA.—Ricardus Johannes Kinkead.

Baccalaurei in Medicinâ.—Geo. Fred. Helm, Jacobus Henricus Reynolds, Samuel Kyle Cotter, Georgius Edvardus Dobson, Carolus Fredericus Pollock, Henricus Jagoe, Alexander D. Henry, Valentinus Duke, Samuel Lane Popham, Gulielmus Albertus Paxton, Gulielmus Tyndall Watson, Geraldus Franciscus Yeo, Horatio Scott, Alfredus Lloyd Owen, Hor. Edmund Maunsell, Gul. Henricus Goode, Carolus G. M'Dowell.

Baccalaurei in utroque Jure.—Johannes Bell, Thomas Henricus Barton, Gulielmus Frazer Nash, Henricus Ricardus Parker, Georgius Fr. T. Drapes, Gulielmus Crozier, Henricus Oliverus Barker.

Magistri in Chirurgiâ.—Henricus Jagoe, Samuel Kyle Cotter, Carolus Fredericus Pollock, Samuel Lane Popham, Geraldus Francicus, Yeo, Jacobus H. Reynolds.

Magistri in Artibus.—Edvardus Maunsell, Carolus Hare Phipps, Rev. Georgius A. Chadwick, Rev. Gulielmus Lefroy, Rev. Mich. Smith Daly, Jacobus Rowley, Rev. Rob. H. Falkner, Gulielmus Henricus St. Monck *(stip. cond.)*, Rev. Thomas Alex. Hughes, Rev. Joh. Geor. Norton, Rev. Thos. M'Nally, Gul. Henricus Craig, Rev. Johannes Chute, Rev. Edwinis W. Jonas, Rev. Ricardus Gul. Vigors, Rev. Oliverus Gul. Stokes, Rev. Fredericus Tymons, Gulielmus Watson, Arthurus Seamer, Rev. Joh. Alex. Stewart, Rev. Geo. Patr. Keogh, Rev. Johannes Williams, Rev. Samuel Benton Brasher.

Baccalaurei in Theologiâ.—Rev. Mauritius F. Day *(stip. cond.)*, Rev. Johannes Hart Burges.

Doctores in Medicinâ.—Geo. Fred. Helm, Mauritius Collis, Gulielmus Tyndale Watson.

Doctores in utroque Jure.—Gulielmus Crozier, Thos. Henricus Barton, Digby Pilot Starkey *(Honoris causâ)*, Johannes Forster *(Honoris causâ.)*

Doctores in Theologiâ.—Rev. Mauritius F. Day *(stip. cond.)*, Rev. Johannes Hart Burges.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following is the result of the election on Thursday last. Out of 300 Fellows who voted, 135 were Fellows by examination :—

Mr. Prescott Hewett	189	
Mr. Spencer Smith	143	Equal.
Mr. John Birkett	143	Equal.
Mr. Luther Holden	136	
Mr. F. C. Skey	87	
Mr. Thos. Wormald	55	
Mr. Francis Kiernan	30	

THE SURGEON OF THE DIANA.—It is so seldom that members of our profession meet with their due, in the shape of public acknowledgment, that we have great pleasure in reproducing from the *Times* of the 2nd inst., an account of the testimonial to Mr. Smith, of Coggleshall, presented on the 29th ult :—On Saturday a special meeting of the Hull Local Marine Board was held at the Board-office, under the presidency of Mr. H. J. Atkinson, the chairman, for the purpose of presenting to Mr. Charles Edward Smith, a testimonial, as a recognition of his service as surgeon of the whaler *Diana* of Hull, which was beset in the Arctic seas during last winter. On Mr. Smith entering the room he was informed that a special meeting of that Board had been called in consequence of a despatch having been received from the Board of Trade, awarding him a testimonial for his gallant conduct under very trying circumstances. Accompanying the testimonial there was a case of surgical instruments. The testimonial, which was beautifully illuminated, ran as follows :—"To Charles Edward Smith, of Coggleshall, Essex, late surgeon of the whaler Diana of Hull, in recognition of his generous, humane, and unwearied services to the crew of that vessel, while they were suffering from a severe attack of scurvy, aggravated by their dangerous position and detention in the ice, and by want of food, clothes, and other necessaries. This testimonial, accompanied by a case of surgical instruments, is presented by the Board of Trade, this 24th day of June, 1867,—RICHMOND, President, THOMAS GRAY, Assistant, Marine Department." The Board of Trade had requested that the testimonial should be presented in a public manner, and the chairman trusted that through the press the presentation would receive the same publicity which the story of the hardships and sufferings of the unfortunate crew had done. Mr. Smith, in reply, said he was at a loss for words suitably to return thanks for the great honour which had been done him. It was but seldom that such an adventure as his occurred to surgeons, either at sea or on land, and it was more than he could expect, occupying as he had done the humble position of surgeon on board a whaler, to receive such a distinguished honour. He could not refrain from saying a word on behalf of the gallant crew, for when he looked back upon that fearful voyage, and the dreadful struggle they had

for life under overwhelming hardships, worn out with hard work and constant pumping, with a debilitating disease among them, he must say that the country ought to be proud of those brave men. Captain Allen Young had journeyed to Hull to see the vessel, and he had expressed the greatest admiration for those gallant fellows, most of whom had been reared and trained by that gray-headed old man, Captain Gravill, who perished amid "that dreary waste of snow and ice." In conclusion, he desired sincerely to thank the British Government, through the Hull Local Marine Board.

INSANITY IN ENGLAND.—The number of insane persons in England and Wales liable to official visitation at the beginning of the present year (according to the official report of the Lunacy Commissioners) was 49,082, an increase of 15,291 over the number ten years ago. 42,943 were paupers, seventh-eighths of the whole number; and more than 10,000 of these are in workhouses. Provision is made in asylums for only 61 in a hundred of the insane poor; the pressure for further accommodation is most urgent in many districts, and it is unsatisfactory to observe the tendencies in many counties to remove the harmless chronic cases to the workhouse, where they must receive inferior treatment. Of the private lunatic patients visited, 6139 in all, the great mass are persons in licensed houses and hospitals; only 223 are persons residing as single patients with relatives or others. But there is no doubt that this last number does not all represent the patients who ought legally to be visited by the Commissioners, and that a very large number are still received to board and lodge, or to be taken care or charge of for profit, by persons other than committees appointed by the Lord Chancellor; and the Commissioners express their fear that grave abuses still frequently exist in reference to the treatment of this class of the insane. Of the 24,748 pauper patients in public asylums in England on the 1st of January, 1867, only 10 per cent. are described as offering any hope of recovery; of the 22,257 incurable, two-thirds are returned as "excited, violent, or dangerous," and one-third "quiet and harmless." At the commencement of the year 1866 there were 30,868 lunatics in asylums, hospitals, and licensed houses, and 31,914 at the close of the year; in the course of the year 3,432 were discharged recovered, and 3,223 died.

CHARGE AGAINST A DENTIST.—At the Greenwich Police Court last week, a servant charged a dentist with having committed a rape upon her whilst she was under the influence of chloroform, for the purpose of having a tooth extracted. The defendant's servant asserted that she was in the room while the operation was being performed, and that her master was innocent of the charge. Yet the dentist was committed for trial, and will have to undergo—whether innocent or not—the untold agonies of suspense. So awful an accusation—and, as it happened in this case, from an accuser who was proved to have told her mistress a falsehood as to where she had spent Whit-Monday—may inflict upon any one the greatest misery. It seems hard that, with a witness testifying that the charge was unfounded, any further enquiry should be necessary. The bare possibility of charges of this kind being trumped up gives the profession a terrible interest in such events. It would seem that the presence of the operator's servant is an insufficient protection.

THE LATE SIR WM. LAWRENCE.—On Friday last the veteran Sergeant-Surgeon to the Queen, whose illness we have lately noticed, expired at his residence in Whitehall-place. So much did his vigorous constitution rally from the attack with which he was seized two months ago, that some of his more sanguine friends, notwithstanding his great age, entertained hopes of his recovery until the last relapse, which occurred two days before his death. As long ago as 1815 Wm. Lawrence had reached the post of Professor of Anatomy and Surgery at the Royal College of Surgeons. He was then known as a most zealous and hard-working man, which he has continued so to be ever since. In fact, he may almost be said to have died in harness; for the day before the fatal seizure he had been at Bethlem Hospital, and there made an appointment for the next day, which paralysis prevented his keeping. His long service at St. Bartholomew's Hospital has often been commented upon. Amongst his writings we should enumerate as most remarkable, his "Lectures on Physiology and the Natural History of Man," and his introduction to "Comparative Anatomy and Physiology." More strictly practical were his "Treatise on Ruptures" and his "Diseases of the Eye,' but these by no means exhaust the catalogue of his literary labours. Since his illness he had resigned the post of examiner at the College of Surgeons. His seat at the Council is now also vacant. He died at the age of 83, and is succeeded in the baronetcy, so recently created, by his son, an able and accomplished member of the medical profession, who will not fail to reflect credit on the title his father won, but wore for so short a period.

HER ROYAL HIGHNESS THE PRINCESS OF WALES.—As announced in our columns, on the 26th ult., the improvement in the condition of Her Royal Highness was so marked as to permit the eminent gentlemen in attendance to encourage the hope of the early resumption of carriage exercise. It was, however, deemed prudent to postpone removal for a few days, in order that recovery might be more decided, and to avoid the risk of a relapse to their illustrious patient. During the past week Her Royal Highness had been visited by Her Majesty the Queen, the Queen of Prussia, and other members of the Royal Family. On Saturday last, the Royal pair were to be seen again in the Parks, where their presence excited considerable enthusiasm. The healthy and cheerful appearance of Her Royal Highness excited general remark.

THE PRINCESS OF WALES.—It was anticipated the Princess would have been in Hyde Park on the occasion of the intended review of last Friday, which was at the last moment postponed, out of respect to the memory of Maximilian. Her Royal Highness is able to take out-door exercise, and will soon become once more familiar in the park drives.

ROYALTY IN THE HOSPITALS.—The Prince and Princess Louise of Hesse and the Princess Louise, have during the week visited several of the London Hospitals. It is well for the highly placed to take an interest in the lowly, and especially the sick. There is little use, however, in the dry chronicle of the names of those who received the visitors to which our contemporaries devoted their space.

HUNTERIAN MUSEUM.—The very valuable museum of the late Mr. Toynbee, consisting of an unrivalled series of specimens illustrative of Aural Pathology, has been acquired by the London College of Surgeons, and added to the great Hunterian Collection. Mr. Toynbee was, as is well-known throughout his career, a most diligent worker in this department of pathology, and it is gratifying to know that the labour he bestowed upon it will thus be preserved. Considering the poverty, as to aural pathology, of most museums, including the Hunterian itself, until this acquisition, we know of no specimens that could have been obtained equal to these for completeness. The college may now boast of the best aural museum in Europe.

TURKISH BATH.—The following report from the medical officer was read at the last meeting of the Board of Guardians, Fermoy Union:—"The Turkish bath, after a trial of four years in the Fermoy Workhouse, has been found a useful remedial agent in a large class of cases—for example in congestive and inflammatory states of the internal organs and viscera, the lungs, liver, and kidneys in particular, renal dropsy, Bright's disease, &c. In virtue of its eliminating process it has been successfully employed in the treatment of rheumatism, sciatica, and gout. On the whole, I regard the Turkish bath as a valuable aid to medicine in the treatment of disease, and of every extended, though not universal, applicability.—JOHN ROCHE, M.D."

NOTICES TO CORRESPONDENTS.

IS MEDICAL REGISTRATION NECESSARY?

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have been asked the above question several times within the last few days, under the following circumstances, viz.—A gentleman, *to be presumed qualified* (as his name does not appear in the "Medical Register" for the current year, he may or may not have obtained a medical qualification), is called to a case, which he treats, and meets a duly-qualified and registered Practitioner, and together they attend the case to a successful issue, and receive the usual honorarium. The same gentleman attends other cases; in fact obtains a fair share of practice, and does not refuse the fees consequent thereon. And all the time he has never thought fit to comply with the requirements of the Medical Act regarding registration of his qualifications *(if any)*, his only distinguishing mark being "Dr." on his door, and "M.D." after his name in "Thom's Directory."

Now, sir, I would ask, does the Medical Act make it compulsory on all qualified men embarking in practice to register, and if not, why not? While on the subject of registration, I would suggest an alteration in

the existing rule as to change of residence, and instead of leaving it optional with a medical man to insert his new place of abode, I would propose it should be made compulsory. Neglect of this is calculated to lead to much evil; for instance, suppose a qualified man to die, a friend or neighbour may assume his diplomas, &c., and start for practice in another locality, where he is unknown. When questioned as to non-registration of his qualifications, he quietly points to the name of the deceased, cooly assuring his interrogator that he did not think it worth his while changing the address, *as he was so well known!* I assure you, sir, there is an instance not a hundred miles from town, owing to non-insertion of change of residence, which I would not be at all surprised to find, answered very closely to the above stratagem, which, believe me, is not by any means imaginary. Hoping some of your numerous readers will join me in bringing the above points prominently before the notice of the Medical Council, viz.—1. To render it compulsory on every one obtaining a Medical or Surgical qualification to register same before commencing practice; and 2. To make it compulsory for every registered Medical man, on changing his residence, to insert his new place of abode in the "Medical Register" for the current year. Apoligising for trespassing so far on your space, I remain, yours obediently,

JOHN S. A. CUNNINGHAM, M.D.

Grosvenor-road, East, Rathmines, June 28th, 1867.

[No Medical Practitioner need register unless he wishes, and, in point of fact, many object, we think advisedly, to do so, not wishing their names to appear side by side with persons who, though legally qualified, occupy an inferior position in the Profession. In omitting to register, a Medical man foregoes the right of recovery of his fees in courts of law, the reception of any legal certificate from him, and the holding of any public appointment; and the loss of these privileges is the only penalty. —ED. M. P. & C.]

BOOKS AND PAMPHLETS RECEIVED.

Nashville Journal of Medicine and Surgery. June, 1867.
Appendix to the Prescriber's Companion.
Wine and its Adulterations. By James L. Denman.
Elements of Chemistry. By William Allen Miller, M.D., LL.D. Part I. Chemical Physics. London: Longman, Green & Co.
The Medical and Legal Aspects of Sanitary Reform. By A. P. Stewart, M.D., and E. Jenkins, Barrister-at-Law. London: Robert Hardwicke.
Journal of Cutaneous Medicine. Edited by Erasmus Wilson, F.R.S.
Ununited Fracture Successfully Treated; with Remarks on the Operation. By Henry J. Bigelow, M.D.
The Glasgow Medical Journal for July.
The Westminster Review for July.
The Pharmaceutical Journal for July.
The British Journal of Homœopathy.
The Monthly Homœopathic Review.
The Half-yearly Abstract of the Medical Sciences. Vol. XLV. London: John Churchill & Sons.
Observations upon the Preservation of Meat, Poultry, Fish, &c., in Tropical Climates. London: Simpkin & Co.
Braithwaite's Retrospect of Medicine. Vol. LV., January to June. London: Simpkin, Marshall & Co.
The New York Medical Journal for June.
Hardwicke's Science Gossip for July.
The Journal of Mental Science.

MEDICAL VACANCIES.

Battle Union (Districts Nos. 1 and 2 and Workhouse)—Medical Officer.
Freebridge, Lynn Union—District Medical Officer.
Hereford General Infirmary—House-Surgeon.
Leominster Union—Medical Officer for the Workhouse and No. 1 District.
Surrey Dispensary—Physician, *vice* Dr. Gervis, resigned.

MEDICAL APPOINTMENTS.

ADAMS, G., M.R.C.S.E., has been appointed Medical Officer for District No. 2 of the Bedminster Union, Somersetshire, vice W. F. Carter, L.R.C.P.Ed., resigned.
BASAN, H., L.R.C.P.Ed., has been appointed Resident Apothecary to the St. Marylebone General Dispensary, vice T. Peete, M.D., resigned.
BLACK, D., M.B., has been appointed Medical Officer and Public Vaccinator for the Parish of Kilfinichen, Argyllshire, vice J. M'Nab, M.D., resigned on being appointed Medical Officer and Public Vaccinator for the Parish of Assynt, Sutherlandshire.
CHILD, E., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the New Malden District of the Kingston Union.
CORLEY, A. H., M.D., F.R.C.S.I., Lecturer on Anatomy at the Carmichael School of Medicine, has been appointed Surgeon to Jervis-street, Hospital, Dublin.
FERNIE, J., M.R.C.S.E., has been reappointed Medical Officer for District No. 3 of the Upton-on-Severn Union, Worcestershire.
GREEN, E. S., L.R.C.P.Ed., &c., has been appointed Medical Officer and Public Vaccinator for the Settle and Horton-in-Ribblesdale Districts and the Workhouse of the Settle Union, Yorkshire, vice R. Simpson, L.R.C.P.Ed., resigned.
JACKSON, G., L.R.C.P.L., &c., has been appointed Medical Officer and Public Vaccinator for District No. 3 of the Plymouth Union.
M'LEAN, Dr., has been appointed Medical Officer for the 10th District, Barony Parish, Glasgow, vice M. Thomas, M.D., appointed Medical Superintendent of the Glasgow Royal Infirmary.
MARTIN, T. H., M.R.C.S.E., has been re-appointed Medical Officer for District No. 5 of the Horsham Union, Sussex.
PEARSE, F. E., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for District No. 6 of the Wellington Union, Somersetshire, vice W. B. W. Webber, L.S.A.L., deceased.
PIERCEY, W. L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Trimdon (a new) District of the Sedgefield Union, Durham.
REYNOLDS, W., M.R.C.S.E., has been appointed Medical Officer for the Workhouse of the Wellington Union, Somersetshire, vice W. B. W. Webber, L.S.A.L., deceased.
RIGG, T., M.D., has been appointed Medical Officer for the Bowness District of the Wigton Union, Cumberland.
SHERATON, G. R., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Sedgefield District and the Workhouse of the Sedgefield Union, Durham, vice H. J. Ruddock, M.R.C.S.E., resigned.
STEPHENSON, W. H., M.D., has been appointed Medical Officer for the Blackburn No. 3 District of the Blackburn Union, Lancashire, vice W. E. Smith, M.R.C.S.E., resigned.
TURNER, A. C., M.R.C.S.E., has been appointed Medical Officer for Districts Nos. 1 and 2 of the Woodbridge Union, Suffolk, vice W. N. Walker. M.R.C.S.E., resigned.
WALSH, W., L.K.Q.C.P.I., has been appointed Medical Officer and Public Vaccinator for the Whitmore District of the Newcastle-under-Lyme Union, and Certifying Factory Surgeon for the Newcastle-under-Lyme District, vice G. Barnes, L.R.C.P.Ed., resigned.
WRIGHT, T. P., M.R.C.S.E., has been appointed Surgeon to the House of Correction at Wandsworth, vice W. Harris, F.R.C.S.E., resigned on account of ill-health arising from injury received in the execution of his duty.

MILITARY AND NAVAL MEDICAL APPOINTMENTS.

BETT, R. L., M.R.C.S.E., Assistant-Surgeon R.N., has been appointed to the "Malabar."
BLATHERWICK, T., M.R.C.S.E., Staff-Surgeon Army, having completed twenty years' full pay service, has been promoted to Staff Surgeon-Major under the provisions of the Royal Warrant of the 1st of April.
BURKE, J., L.R.C.S.I., Staff Surg.-Major Army, has been promoted to Deputy Inspector-General of Hospitals on retiring upon full pay.
CALDWELL, J., M.R.C.S.E., Surgeon R.N., has been appointed to the "Britannia."
COOPER, G. C., has been appointed Assistant-Surgeon to the 3rd Middlesex Artillery Volunteer Corps.
CRAWFORD, W., L.R.C.S.Ed., Surgeon R.N., has been appointed to the "Fisgard," for temporary service.
CRISP, W., M.R.C.S.E., Staff Assistant-Surgeon Army, has been appointed Assistant-Surgeon to the 3rd Foot, vice Wilson, appointed to the Royal Artillery.
CULLEN, W. F., L.F.P. & S. Glas., Staff Assistant-Surgeon Army, has been promoted to Staff Surgeon, vice Burke, who has retired upon full pay.
GAUSSEN, J. R., M.B., Staff Assistant-Surgeon Army, has been appointed Assistant-Surgeon Royal Artillery, vice Temple, appointed to the Staff.
M'WHARRIE, R., M.D., Surgeon-Major Army, has been promoted to Deputy Inspector-General of Hospitals, on retiring upon full pay.
PLOMLEY, J. F., has been appointed Assistant-Surgeon to the 1st Kent Rifle Volunteer Corps, vice Sankey, resigned.
PRALL, S., M.D., has been appointed Hon. Assistant-Surgeon to the 39th Kent Rifle Volunteers Corps, vice W. F. Keddell, M.R.C.S.E., resigned.
PROVIS, W. A., M.R.C.S.E., has been appointed Assistant-Surgeon to the 8th Cheshire Rifle Volunteer Corps, vice Mayer, deceased.
RIORDAN, T. T., L.R.C.S.I., Assistant-Surgeon R.N., has been appointed to Haslar Hospital.
ROE, W. C., L.R.C.S.I., Staff Surgeon Army, has been appointed Surgeon to the 59th Foot, vice M'Wharrie, M.D., who has retired upon full pay.

Births, Marriages, and Deaths.

BIRTHS.

WILLIAMS.—On the 26th ult., at Montagu-square, the wife of A. Wynn Williams, M.D., of a son.
BUCKENHAM.—On the 27th ult., at Huntingdon House, Cambridge, the wife of John Buckenham, L.R.C.P.Ed., of a daughter.
FARR.—On the 27th ult., at West-square, St. George's-road, the wife of Dr. G. F. Farr, of a son.
BATEMAN.—On the 28th ult., at Compton-terrace, Canonbury, the wife of H. Bateman, F.R.C.S.E., of a daughter
SHEPARD.—On the 28th ult., at the Swyn, Usk, the wife of A. J. Shepard, M.R.C.S., of a daughter.

MARRIAGES.

EDWARDS, GARDNER.—On the 13th ult., at Rugeley, Henry Nelson Edwards, Esq., Surgeon, of Shrewsbury, to Catherine, only child of the late Thos. Gardner, Esq., of Rugeley.
WRIGHT, NEAL.—On the 15th ult., at Birmingham, M. H. Wright, M.R.C.S.E., third son of A. Wright, Esq., of Lincoln-street, Leicester, to Eliza Breward, only daughter of the late Henry Neal, Esq., of Castle Mills, Leicester.
NANKIVELL, AITKEN.—On the 27th ult., at St. John's Church, Pendeen, Cornwall, Herbert Nankivell, M.D., of Doncaster, to Etheldreda, youngest daughter of the Rev. R. Aitken, of Pendeen. No cards.
M'DERMOTT, SLATTERY.—On the 2nd instant, at Lismore, P. A. M'Dermott, Esq., Surgeon, 2nd Depot Battalion, Chatham, to Annie, only daughter of John Slattery, Esq., of Lismore, Co. Waterford.
LYNES, HUGHES.—On the 2nd inst., at Holy Trinity Church, Coventry, Edward Lynes, M.D., to Ellen, second daughter of Andrew Hughes, Esq., of that city.

DEATHS.

TAYLOR.—On the 8th of May, at sea, on board the steamship "Natal," Geo. Taylor, M.D., Deputy Inspector-General of Hospitals.
HUNTER.—On the 22nd ult., R. H. A. Hunter, L.R.C.S.Ed., of Dollar, Stirlingshire, 1st Class Staff-Surgeon Army, on half-pay, aged 61.
JOHNSON.—On the 24th ult., at Malvernbury, Great Malvern, E. Johnson, M.D., formerly of Umbersdale Hall, Warwickshire, aged 66.
PHIPPS.—On the 26th ult., at Cheltenham, J. G. Phipps, M.D., aged 49.
HARTE.—On the 26th ult., J. F. Harte, L.R.C.S.I., of Coolrain, Mountrath, Queen's County, aged 35.

Original Communications.

ON THE INFLUENCE OF CLIMATE IN THE PREVENTION AND CURE OF CHRONIC TUBERCULAR PHTHISIS.

By EDWIN LEE, M.D., Etc.

[*Abstract of a Communication read and discussed at the Annual Meeting of the Scientific Congress of France, held at Aix, in Provence, and at Nice, in December*, 1866; *with additional observations on the subject.*]

In offering to the consideration of the Medical Section of the Scientific Congress, the following brief observations respecting the influence of climate as a prophylactic and remedial agent in tuberculous disease of the lungs, I assume, as a basis, the conviction now generally entertained by the most enlightened members of the medical profession, that this disease is curable in a large proportion of cases; and even when not curable, that its progress may very often be arrested, so as to enable the patient to live for a long time in a tolerable state, and exempt from suffering. The opinion of the incurability of pulmonary consumption which formerly prevailed, was in great measure owing to the erroneous idea that was very generally formed of the nature of the disease—the attention of practitioners and of the public being too exclusively restricted to the local organic lesion, without taking sufficiently into account the abnormal condition of the system on which the lesion depended, and the predisposing causes which chiefly tended to produce it. The treatment, being directed in this sense, at best only occasioned partial and temporary ameliorations, while almost invariably the disease progressed more or less rapidly to its fatal termination.

That the morbid condition of the system which gives rise to pulmonary phthisis (when not of an hereditary nature) is mainly referrible to anti-hygienic atmospheric influences, is proved by the general prevalence of the disease among the population of countries and localities where similar influences are most observed, and among those classes who are most exposed to their action. Thus, in all countries where the climate during the greater part of the year is humid, and at the same time cold and variable, consumption prevails to a much greater extent than elsewhere. That this prevalence is not owing to the low temperature, nor to the variations of the atmosphere separately considered, but is referrible to its humidity, is demonstrated by the circumstance that in many parts of Russia, in Sweden, Norway, and other northern countries where the air is dry, the disease is of unfrequent occurrence; whereas, it is extremely prevalent in many parts of France, in Germany, in Great Britain and Ireland, where humidity is a predominating characteristic of the climate. Nowhere is the mortality from phthisis greater than in Holland.

In the above-mentioned northern countries, the inhabitants are for the most part engaged in out-door avocations, and are but little addicted to in-door and sedentary pursuits, in which a large proportion of the population of countries more advanced in civilisation is engaged, and which materially conduce to deteriorate the constitution—in the same way as humidity—by preventing the free action of the skin, and thus predispose to pulmonary disease; whereas, an active out-door life, in fine dry weather, greatly promotes this action, and acts as a preventive.

On the other hand, in countries where humidity is combined with heat, consumption is prevalent, as in several portions of Africa, Asia, and South America, especially in the Lower Brazils, several of the West India Islands, the shores of Peru; whereas, in the mountainous regions of these countries, as the elevated plateaus of Peru and Mexico, where the air is light and dry, it is almost unknown among the indigenous populations.

A French physician made a series of observations several years ago in his own, and in other countries, in order to ascertain the relative frequency of tubercular disease among the inhabitants of different localities, under different circumstances of situation and mode of life, and he remarks with respect to France—that in the small towns, where the population is composed of agriculturists, artisans, and trades-people, the proportion of deaths from pulmonary consumption is as one to forty or fifty of the general mortality, where the towns are situate on the acclivity of mountains, on elevated table-lands, in dry valleys accessible to winds, or in fertile plains, but that, under these conditions, the disease does not occur with the same degree of frequency in the different classes—"It is very rare among the agriculturists and artisans who actively exercise their limbs, but it attacks almost exclusively persons who usually remain in-doors, using only their hands or fingers for their work. Individuals who are exposed to the action of humidity only while at work, do not become consumptive, where their physical powers are actively engaged, as tanners, wool-washers, washer-women, dyers, the expansive and sudorific influence of muscular exercise sufficing to preserve them from the disease.

"In villages favourably situate, where there are no sedentary avocations, and where the inhabitants are engaged in working in the fields, the average mortality from consumption is not more than one in eighty of the general mortality. Hence it may be laid down as a principle, that in order to preserve men and animals from tubercular affections they must be freely exposed to atmospheric influences.

"In Holland, sedentary occupations concur with humidity to increase the amount of pulmonary consumption. What more especially predisposes women to this affection is their lymphatic constitution and sedentary mode of life, for the women who inhabit the healthy villages of France, Belgium, or Italy, and who, like the men, follow agricultural pursuits, are exempt. But in the damp climates of Holland and England, the conditions are no longer the same. The humidity exerts a general influence which muscular exercise cannot always counteract; it even happens that by producing sweating, exercise renders the body more subject to the concentered and debilitating influence of cold and humidity.

"The effects of seclusion and sedentary occupation are seen on a large scale among the work-people employed in the silk manufactories at Lyons (where, moreover, the climate is very humid). It appears, from a statment of M. M. Brachet and Rougier, physicians to the hospital, that out of 250 deaths occurring in this section of the population, 82 were from consumption. At Nismes, notwithstanding the superiority of the climate, the silk manufactories favour the development of scrofula and phthisis, which circumstance arises from the operatives constantly remaining within doors, for at Arles most of the consumptive patients who died in the hospital had pursued sedentary occupations, not connected with silk works. The proportion of deaths from this disease to the general mortality was one-third. At Rouen the two most general causes of tuberculous disease—humidity and working in the manufactories—exert their influence upon the population. One-fourth of the patients who die in the hospitals succumb to consumption, which is much less frequent among other working classes not suffering from privation. It is very rare among those who work in the port, and among sailors, as also among the dyers, who are very numerous along the banks of the little river Robec. The former of these classes are robust, well-fed, and often intemperate. But in both these classes of operatives the expansive and sudorific action of exercise suffices to counteract the noxious influence of external agencies—viz., the dampness of the climate, and of the localities where it is most prevalent.

"In examining the influence of humidity, under different conditions, we see that it gives rise to serious acute diseases, and to various chronic diseases, by acting chiefly on the skin. Two general causes predominate over all others in producing the majority of chronic diseases—viz., want of muscular exercise, and humidity. These causes act chiefly upon the skin; and they tend incessantly to throw back into the stream of the circulation superfluous and

excremential elements which should be eliminated from the economy; thus are induced alterations in the state of the blood, and cachexies, the cause of which was formerly unknown.

"By examining the products of perspiration during hard labour or violent exercise, we may form some estimate of the prejudicial effects of habitual inactivity upon the animal economy. After violent bodily exercise the skin is bathed in sweat, as is also the clothing in contact with it—the lactic, and soils the linen. In the passive state, the same elements (lactic acid, water, salts of various kinds, &c.) are retained in excess in the economy; men and animals become fat; the water tends to diffuse itself in the textures; the salts tend to form other combinations, and the excess of lactic acid becomes the cause of various diseases, the form and nature of which vary according to climates, localities, and the age of individuals.

"The treatment of pulmonary consumption usually terminates where it ought to have begun. Consumptive patients are sent to Italy or the South of France at a period when there is no longer hope. In this treatment, everything is interverted. Measures are directed towards the lungs when they should be directed to excite the functions of the skin." *

These observations, it will be seen, were made many years ago, but subsequent experience has tended to confirm the general justness of the author's conclusions. A high authority on the subject of climate (Sir James Clark) likewise observed on this head many years ago:—"The effect of sedentary habits is most pernicious, and there is, perhaps, no cause (not excepting hereditary predisposition) which exerts such a decided influence in the production of consumption as the privation of fresh air and free exercise. These operate as the principal causes of its greater frequency among the females of the higher classes."

Mr. Ancell, in his work on Tuberculosis, cites on this point the testimony of Dr. Gay, who found, in the close workshop of a printing establishment, that the compositors, whose employment is sedentary, fell victims to phthisis in the proportion of 74 to 100, the proportion being 31 per 100 in the pressmen, who, though breathing the same air, and in every respect subject to the same habits of life as the compositors, differ only in being engaged on the active bodily exercise of the press; and that among the same class of operatives the deaths from this cause did not exceed 25 per cent. in those who used exercise in the open air. In men following indoor occupations, the ratio is highest when there is least exertion, and lowest in employments requiring strong exertion. In the hospital for consumption at Brompton, the relative liability was found to be 63 per cent. of working in-door males, to 30 per cent. on out-door; and all the consumptive females followed in-door occupations.

It is true that in some places, characterised by dryness of the atmosphere, as in Provence, especially in Marseilles and some of the smaller towns on this coast of the Mediterranean, there is a tolerably large mortality from chronic pulmonary disease, which, though generally set down to the amount of tubercular phthisis, is not always referrible to this origin, and is produced by different causes to those already specified. At Marseilles, where there are no protecting hills, and where the influence of the sharp north-west wind, or *mistral*, is severely felt, the transitions of temperature are very great and sudden, and these acting on constitutions enfeebled by poor living, and exposure to the oppressive heat of summer, very often produce inflammatory affections of the lungs and air-passages, which terminate after repeated relapses in consumption. The same thing is seen, to a certain extent, in the general winter atmosphere of Nice; but that the disease is not attributable to the climate is proved by the circumstance, that it is mostly restricted to the poorer classes who live in the low confined streets of the old town, and are badly fed and clothed, whereas, the other classes of the population, as also the inhabitants of the neighbouring country, are in great measure exempt. This I have been able to ascertain from observation and enquiries on the spot, and I find it stated by a distinguished medical writer of the time of the first French republic, that "in Italy, and in some of our southern climates, pulmonary phthisis generally depends upon slow inflammation of the organs of respiration. In cold and damp countries slow inflammation of the lungs is of rare occurrence. Phthisis is there generally owing to other causes." * This is well seen in Egypt, which presents two different characters of climate. In Alexandria and in the Delta of the Nile, where humidity prevails, combined with warmth, the chronic form of tubercular phthisis is very common both among the natives and Europeans there residing; whereas, in Upper Egypt, where dryness (also combined with warmth) is the predominating character of the atmosphere, the disease is but rarely met with, unless among the Abyssinians who, descending from their hotter country to the valley of the Nile, are the more easily affected by the comparative coolness and the great variations of temperature to which this district is subject. In the desert, however, where those causes are not operative, the disease in the chronic form may be said to be almost unknown.

From what has been advanced we may reasonably conclude, that the most effectual way to prevent the supervention of tuberculous disease of the lungs in those who have shown a predisposition to its occurrence, and to cure it when existing, and not so far advanced as to be irremediable, is to place the patient, who may have been subjected to the predisposing causes referred to, under totally opposite climatic conditions during the more unfavourable part of the year; and this conclusion is justified by the results which have attended the judicious emigration of pulmonary invalids to more favourable winter resorts than exist in northern countries.

The efficacy of a residence in southern climatic Sanataria, says a German medical writer, is to be ascribed especially to the greater warmth of the southern winter. By removing a patient labouring under pulmonary disease to one of those southern localities a double advantage is obtained—first, the negative, that the patient escapes the injurious influences of the northern winter, whereby his lungs and constitution are afforded an opportunity of recovering; secondly, the positive and direct, arising from the frequent enjoyment of a mild and pure atmosphere, and the power of taking bodily exercise, advantageous alike to the respiration, and the nutriment of the body.

"It may be taken as a rule, that the moister the climate is, the more uniform will be the temperature, but it is, at the same time, to be observed, that the moister the air, so much the more will the cold be felt, particularly where the air is in motion, and so much the more particularly will be the variations of temperature. While, when the air is dry, neither the cold nor the variations of temperature, which in this case are certainly more considerable, are similarly felt. It is also to be observed, that the humidity of the air does not directly coincide with the frequency of rain. Frequency of rain is not necessarily connected with a moist climate. A climatic agent, to which little value is usually attached, but the importance of which, to invalids, should not be underrated, is the clearness of the sky. 'The degree of habitual clearness and brightness of the heavens,' says Humboldt (Cosmos), 'is important, not merely for the increased warming of the ground, the organic development of plants, and the ripening of fruits, but also for the sensations and entire disposition of man.' When we consider that a cloudy day depresses a healthy man, while, on the contrary, a clear day excites and enlivens his spirits, how much more is not the case with an invalid, and how important, in this instance, is the reflexion thereof upon the bodily condition. But an invalid who leaves his home on account of his health, and lives in a strange neighbourhood, and under unusual circumstances, has a very peculiar need

* Des causes generalis des maladies chroniques; specialement de la Phthisie Pulmonaire. Par le Dr. Fourcault. Paris, 1844.

* Cabanis. Rapports du Physique et du Moral de l'Homne. Section, Influence des Climats sur les Habitudes Morales.

of such external stimulus. A blue sky and bright sunshine give an additional charm to nature, and the contemplation of nature occupies, calms, and rejoices the patient. His thoughts are withdrawn from his own sufferings ; he is animated to the enjoyment of the open air, and to bodily exercise. In this respect we must regard the greater clearness of the sky, which is peculiar to southern regions, as being in itself favourable to the cure of these diseases.

"Much importance has been attached to uniformity of temperature, and it is certain that great and sudden changes act injuriously on those affected with pulmonary disease, but a moderate alternation has, for the most part, a beneficially exciting and strengthening influence on them, particularly on those who are of a weakly constitution, while too great uniformity may produce a prejudicial relaxation. We observe this often in our summer. Where an elevated temperature has prevailed during the day, a mild night and morning coolness have a peculiarly animating and refreshing effect, both on the healthy and on invalids. Alternations of temperature have no longer an injurious influence when they occur with a certain constancy and regularity."*

Experience has abundantly demonstrated of late that a too uniform temperature and state of weather is not the best adapted to procure lasting amelioration in the majority of cases of chronic pulmonary disease ; its continued action on northern constitutions, accustomed to atmospheric variations, producing, in some measure, analogous effects on them to that of a hot-house upon plants, which are unable to bear the action of the outward air. It is true that where there exists much general excitation or inflammatory action in the affected organs, then repose, as far as possible, becomes a matter of necessity, and a uniform moister climate, where the air is not agitated by winds, would be advisable ; but where such excitation does not exist, or exists only in a slight degree, as in most scrofulous or lymphatic subjects, a certain extent of atmospheric variation, as well as moderate exercise of the lungs and of the muscular system, are highly advantageous—tending to improve the general state of the constitution, and to prevent a further deposit of the morbid secretions.

Again, patients whose lungs are extensively diseased, may not unfrequently vegetate in a warm, moist, uniform climate longer than elsewhere—though even they often feel greatly relaxed by the enervating influence of such a climate ; but others less unfavourably circumstanced would, in most instances, from its prolonged action on their system, be incapacitated from encountering, without great risk and considerable discomfort, even the moderate atmospheric changes to which they must be subjected on removing from a locality possessing a similar climate.

As this is a point upon which much misapprehension has prevailed, I will subjoin the opinion of our highest authority on climate respecting it. "Long residence in a very equable climate," says Sir James Clark, "is not congenial to health, even with all the advantages of exercise in the open air ; a moderate range of temperature and of atmospheric changes seems to be necessary for the maintenance of health, and hence many invalids who derive much benefit from a temporary residence in a mild sheltered situation, do not bear as long residence in such an atmosphere without injury. Dr. Combe remarked during his residence at Madeira, "that the invalids were better when the temperature was less steady and the atmosphere more variable, than when the season was unusually mild and equable.' I have remarked the same effects resulting from a long residence in some of the more sheltered spots in our own island. Such situations form excellent residences for a time, after which the patient ceases to improve, and rather loses than gains strength. A long residence in very mild sheltered positions I regard as unsuitable to young persons predisposed to tubercular disease."

"Atmospheric vicissitudes," says a writer on the climate of Nice (Dr. Wahu), have "not so great an influence on the production of phthisis as has been supposed." Dr. Thozolan, physician to the Shah of Persia, wrote from Mianich to the President of the Council of Health for the Army—"One of the most singular facts which I have ascertained here, is the rarity of affections of the respiratory apparatus, especially phthisis, for perhaps nowhere else are the thermometrical changes greater, more needed, or of more frequent occurrence than in this country. One of the most remarkable conditions of the atmosphere of Persia, is its great dryness."* A late eminent London physician likewise observed, with respect to the effect of variations of temperature upon consumptive patients :—"We must be cautious not to carry our anxiety too far, for it is an undoubted fact, that within the limits of rational hardihood, exposure to the open air and to the vicissitudes of the atmosphere is the best safeguard against the attacks of phthisis in those who are predisposed. *It is to the effects produced upon the skin* that great part of the benefit derived from residence in a mild climate is probably attributable ; atmospheric exposure is a very important point during the winter months : in our variable climate it is inadmissible."†

(To be continued.)

* Dr. Rullmann "On the Therapeutic Influence of Southern Climatic Sanatoria." Churchill, 1861.

* The infrequency of tubercular phthisis in dry cold northern regions has been shewn. The effect of a dry air as a remedial measure even in very cold climates, where there exists in the patients a sufficient amount of reactive power—is adverted to by a non-medical writer, who says of the climate of Lower Canada: "Its winter is long and severe. In the neighbourhood of Quebec, cold is not much exceeded by that within the polar circle, but the dryness of the air is so great, that it is strongly recommended to those of comsumptive tendencies. I have seen a wonderful effect produced in the early stage of pulmonary disorders, by a removal from the damp and variable climate of Europe to the dry bracing atmosphere of Lower Canada."—*The Englishwoman in America.*

† The Practice of Physic by Doctors Bright and Addison.

SURGICAL COMMENTARIES :

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. II.—OF THE TERMS "GENERAL HEALTH," CONSTITUTIONAL TREATMENT, AND OF THE INCONVENIENCE OF VAGUE DEFINITIONS, ETC.

THE terms "general health," "attention to the general health," "constitutional treatment," have been too vaguely employed. They have been applied to various conditions, involved various modes of proceeding, without any intelligible definition of the state of the animal economy to which they were administered, or of the precise means by which the objects proposed were to be accomplished.

It is very necessary, according to the principles which will be my object to explain, that we should have a clear view of what the terms "general health" and constitutional treatment are intended to convey.

It may be conceded that in many comparatively unimportant conditions, that kind of popular idea of the general health, is sufficient which includes as its treatment the avoidance of well-known nocentia of mind and body—the observance of simple diet, habitual temperance, and so forth, but when we have to treat serious diseases or important disturbances of mind or body, these loose generalities are of little service. We then require more clearly defined principles to guide our efforts, and, so far as I have perceived, we do not find this in the ordinary practice of physic or surgery.

The absence of this more precise definition at which I would aim, appears to me to have led to erroneous opinions, and serious errors in practice, and to have charged what is called "constitutional treatment," and, indeed, not seldom, medical treatment in general, with a kind of loose character, which, in the really philosophical sense of the term,

the medical man can neither explain, nor the patient understand.

Patients, and even professional men, have thus been often led to conclude, that a condition which is attended with no pain, in which the appetite is good, and the powers of ordinary locomotion unimpaired, is good general health. Nay, more, if there are actually present, material alterations or additions to some structure of the body, cases are not wanting, in which we are assured, both by medical attendant and the patient, that the general health is good. I hold this whole subject to be so important, that, to avoid omitting all illustration, I will mention one case. A man of education and a Member of Parliament, was brought to me by his medical attendant from a distant county, to consult me in relation to a very considerable deposition, of a very firm, somewhat hard character, between the skin and the abdominal muscles. On introducing his patient, the Surgeon informed me that he had read one of my books ; that he was an examined Fellow of the Royal College of Surgeons of England, and a Surgeon to an Hospital. He further proceeded, thus :—The general health of this gentleman, sir, is perfectly good, but he has a considerable tumour on the right side of the abdomen.

On this I requested the patient to strip, and having examined the characters and site occupied by the disease, examined the patient as to his history, state of his secretions, &c. Without detaining my reader with the details, I will at once briefly state what followed. On retiring with the surgeon into another room, I said, what could induce you to bring that patient to me. You say his general health is good ; why, sir, it seems to me that he has scarcely an organ in his body that is not diseased, or greatly disordered in its functions. The surgeon looked rather confused, said, "that he had not been prepared for so searching an examination," he certainly was "astonished at his imperfect respiration," &c. I declined prescribing, because I really knew of no medicine which was likely to be serviceable in the case, and therefore limited my remarks, to the patient, to coinciding with his intention of going to Malvern, and to such recommendations as to simple living, keeping his mind as quiet, and free from annoyance, as possible, and so forth. About a month after this I saw his death in the papers ; it was to me a case accompanied by such evidences of organic disease of the viscera, that I really had nothing to offer that seemed likely to be of service to him—the termination of his case being even in less time than I had predicted.

I am sorry to say I have seen too many instances, of which the foregoing is an example, and I cannot but think that when a man cannot, or does not, institute a "searching enquiry" into a serious case, it would be happy for him were he relieved from a responsibility which unquestionably he does not fulfil.

Some patients will tell you that their general health is good ; you institute some simple test, such as running up and down a very few stairs, when they come puffing away, and then, for the first time, inform you that they always feel distressed on mounting stairs or going up hill. Ladies will, in answer to your enquiries as to exercise, say, oh, yes, I take exercise. When? Oh, almost every day, "when I go shopping," or "when I make calls," or yes, we drive out every day. Sometimes I walk two or three miles. Do you never walk five or six miles? "Yes, sometimes in the winter in fine frosty weather," and sometimes in cool summer evenings. Do you ride on horseback? Yes. How often? Oh, that depends on so and so, &c. It comes to this, that not one person in ten takes regular exercise, who is not obliged to do it, or when some object presents itself to which exercise is an accessary.

Let us, then, now consider health under the idea that we attach to the term "condition," because, although this is a state far from what we can achieve in the treatment of *disease*, we shall most easily arrive at the principles we advocate, by beginning at that point of the subject. Every one is conversant with this fact—that no estimate can be formed of any feat which the body can perform, unless the individual is in what is called "condition." That this condition obtained, many things become not only possible, but safe and even easy, which, without such condition, are impossible ; and, further, that such as *are* possible without "condition," are not unfrequently dangerous and even fatal.

Now it is sufficiently obvious that it would be absurd to talk of getting a man into what is usually meant by "condition," who was labouring under any serious disease ; but I hope to show, in the course of these papers, that there is, in a great variety of cases, a condition relatively to the existing disease—much more approximated to the "condition" of health than is usually obtained—and that this can only be accomplished by a more careful analysis of what we mean by "general health," than the somewhat vague ideas which are usually associated with that expression? I hope also to show, in due course, that unless we have obtained the nearest practicable approach to that condition, that we have no more right philosophically to talk of a disease being incurable, because we have not cured it, than we have to say that a man cannot run a mile without being distressed by it, merely because he may not be able so to do when he is out of "condition." The whole subject is of great importance. There are not wanting abundant proofs that until we can obtain it, by some system or plan which, at least, is definite and intelligible, we shall never arrive at a clear notion of what should be understood by "constitutional treatment"—never know, in a teachable form, how to set about obtaining the maximum of "condition" of which a given case may be susceptible, and consequently not know how to obtain those successes which experience has shown it to be capable of achieving, nor what is scarcely less valuable, the real causes, in cases where our efforts are abortive. In considering the outward and visible signs of health, it is by no means a bad plan to pay attention to those signs in animals—I mean those who may be said to be wild—and to watch the gradual departures from these signs, as well as the supervention of disease as we arrive, through a variety of interferences with natural life, at domesticated animals, in which the greatest departures from natural habits occur *pari passu* with the occurrence of disease. I have gone into this matter so fully in another of my works (on Tumours) that I cannot repeat the matter here. These are, briefly—clear, clean, and healthy skin ; clean tongue ; white teeth ; inodorous, or at least inoffensive breath ; little or no fat, except where it has a special purpose, as in hybernating animals. The observant pathologist will have remarked how all these signs gradually become more or less imperfect as we approach through preserves of game, &c., up to domesticated animals, and the coincident development of diseases, in number and variety.

Now, if you look for these signs in man, you will find that some of them—very frequently all—are absent ; unless, indeed, you examine a man who has been well trained, when you will find one or more, perhaps all, reproduced. That which I intend to convey as disordered health may co-exist with entire freedom from pain, ordinary appetite for food, and the usual locomotion that may be the ordinary exercise of the patient. But it is a state in which the various functions of the body may be performed, but not healthily. I do not mean merely that the various secretions or excretions may be unnatural in quality, but that though the functions are performed, they are not equally distributed. One organ does somewhat more, another somewhat less, and so on. This is a subject of great interest and of some difficulty, as relating to "compensating functions." This I discussed more at large some years ago, and I saw that a good deal of it was delivered in lectures at the College of Physicians by former colleagues of mine, but without acknowledgment. Well, that is beside our purpose.

The readiness with which one organ undertakes the function of another is in obedience to a conservative law under which we can safely undergo a variety of changes which would be otherwise dangerous or impossible. So

much for the use of this interchange of function. But, in the absence of this interchange, although a state of freedom from danger or disease may exist for a time, yet one organ will not continue for an indefinite time to perform the function of any other without disorder, as commonly understood, or disease.

Consistently with the foregoing, a very material element in constitutional treatment, of course, is the equalization of function amongst the various organs of the body. But it may happen in a given case that this is impossible from the presence of organic disease in some one organ. By impossible, I do not mean absolutely, but relatively to our present knowledge. This is an important distinction, because in practice it, according to my experience, makes an exception to a rule. The rule being to act on the primarily affected organ, wherever discovered ; the exception being to act on organs secondarily affected, or otherwise situated, where the organ primarily affected shall have become diseased, that is, changed in structure.

In conducting an examination of a patient I think none of those points should be neglected, which I have tabulated in the book on "Tumours." I will here add a few remarks as guides thereto:—

First, then, the enquiry as to the habits of the patient ; many people have habits which are either positively or negatively injurious to health, such as luxurious living, excesses of various kind, sedentary habits, and such as are popularly known to be unwholesome ; but it should be borne in mind that many cases occur in which there is some habit involving no excess, nor in an ordinary sense unwholesome, which may be exceedingly unfitted or disturbing to the patient at this time.

It is sometimes difficult to get at these habits, from the patient being ignorant that they can do him harm, or from intentional reserve. It is, however, very desirable to let your patient tell his own story, he will often lead you to discover what your questions may fail to elicit. A gentleman, who laboured under severe indigestion, told me that he smoked three pipes every day immediately after breakfast ; he had not the slightest idea that this habit could be injurious. I asked a fine old naval officer if he ever drank spirits. Oh ! no. I thought, said I, that sailors were generally more or less fond of "grog." Oh ! yes, he said, I like a glass of grog now and then, I thought you meant raw spirits. The fact was he took a couple of glasses of rum-and-water every night on going to bed. Recently a case occurred to me where a disease has proved obstinate for years, and under various medical men. On asking the patient his habits he included, amongst others, the drinking a bottle of wine daily without appearing to have the least idea that it might be injurious. Then, there is some use in not putting leading questions, but getting a man to describe an ordinary day, such as—what time do you rise, what next, and so on ? This is all very tedious, but with all your care you will sometimes fail at first to elicit the most important facts ; of which, had I space, I could give very numerous examples.

Well, having got at your patient's habits as clearly as you can, you have next to consider in what organ this or that habit, this or that climate, or such vicissitudes as he may have undergone, will most likely have acted. This, no doubt, requires experience, and whatever knowledge your studies may have enabled you to acquire, as to the organs on which this or that injurious influence is most likely to act.

Now, although almost all disturbing influences may, under varying circumstances, disturb any organ, yet most injurious influences have a *tendency* to disturb one organ more than another. Thus, there is no organ in the body which may not be disordered by excesses in rich food, sugar, fat, alcohol, melancholy impressions, &c. ; yet, as the rule, these agencies much more frequently disturb the liver. This is a subject I have discussed somewhat fully in the "Unity of the Body," but I may be able to add a few remarks on it in a subsequent paper. In order to convey exactly what is intended by disturbance of an organ, I would submit the following :—The ultimate function of every organ is secretion. In health the excitement of this is duly proportioned to the want or the expenditure of the individual. If the excitant is in excess, the organ may relieve itself by increased secretion. If the excess be continued the organ on which it impinges will, after a time, cease to respond by any increase of secretion, and will either transfer the eliminating action or whatever other term you may prefer, by inducing action in some other organ in compensation, or become itself the seat of structural change ; in cases of a certain duration—both. This is how it happens that many kinds of food, which under habitually temperate, or even *occasional* increase, excite secretion, and are, in this way, made useful in many cases of inaction in an organ, become, in their *abuse*, certain excitants of disorder or disease. All this is in somewhat different senses true of rich food, fat, sugar, alcohol, mercury, and all substances which hold to other organs the relation which these more commonly, perhaps, evince towards the liver and other decarbonizing organs. But before we go further in this subject, there are many circumstances to be considered before we can polarize, so to speak, at the bedside the principles I am desirous to explain.

CEREBRO-SPINAL FEVER : ITS TREATMENT BY MEANS OF ICE.

By JOHN CHAPMAN, M.D., M.R.C.P.,
PHYSICIAN TO THE FARRINGDON DISPENSARY.

TOWARDS the close of an article headed "Cerebro-Spinal Fever," which appeared in the last Number of this Journal, there occurs, as the last words of a paragraph quoted from Professor Hirsch, the following statement,—"It has been proposed in some quarters to lay ice-bladders along the vertebral column ; Wunderlich justly pronounces this procedure more troublesome than useful." As I think this statement is calculated to mislead those physicians who, as yet, have had no experience of the action of ice when applied along the spine, but who, influenced by the evidence contained in the article from which the statement is quoted, may feel disposed to make trial of the "external and local use of cold" in the treatment of Cerebro-Spinal Fever, it seems to me desirable that I should at once point out in what respects Wunderlich's opinion is, and is not justifiable.

No doubt the process of covering the spine with ice-bladders, of keeping them precisely along it, and of replenishing the bladders with ice as often as their contents have melted, is very troublesome—so much so, indeed, as to be almost, if not wholly, impracticable ; and certainly sufferers from Cerebro-Spinal Fever are too restless, and too little under intellectual control, to afford any reasonable hope of practising such a method with advantage. Wunderlich is, therefore, quite correct in characterizing it as troublesome. Moreover, bladders of ice applied along the spine necessarily extend a considerable distance on each side of it, and are, therefore, likely to exercise a depressing, and not seldom injurious, influence on the system. They tend to produce a diminution, or arrest, of circulation in those parts of the posterior lobes of the lungs immediately beneath the ice-bladders, they benumb a large surface over which peripheral nerves are distributed, and while lessening the circulation in that surface, are likely, through the agency of reflex action, to cause contraction of blood-vessels in distant parts, and thus to aid in the impairment of the general circulation, the production of shivering, and those untoward conditions of the nervous system which shivering denotes. In the treatment of disease by the application of a sedative or stimulant influence on the spinal and sympathetic nervous centres, the most perfect method would be one by which the agent used should act upon those nervous centres, and upon them alone. This, however, is impossible, at least in the present state of medical science ; but it is obvious that the more nearly this mode of action can be approached the better. Hence the desirableness, in applying cold or heat along the spine, to be able to prevent it from extending far on each side, and to restrict it easily and definitely

to any special segments, when it is needful to act on them, and them only. Experience has convinced me, that in respect to width, bags varying from two inches to four and a-half, are the most suitable. Of course, the narrowest are for children, and the broadest for men, the smaller of the intervening sizes being adapted for the youth of both sexes, and the larger for women. After much thought, I have devised bags of india-rubber, which, as it seems to me, meet each of the above-named requirements: the spinal ice-bags enable the physician to restrict the ice to any particular part of the spine, and may be applied while the patient is in an upright position, or even walking about. They may be applied with very little trouble indeed, and I venture to say that had Wunderlich been acquainted with them, he would not have expressed the opinion, that the application of ice along the spine, is "more troublesome than useful."

Of course, the questions whether, as a general rule, the application of ice along the spine is likely, in any case, to be more troublesome than useful, and whether, in cases of cerebro-spinal fever, it is likely to prove beneficial, are widely different. Dr. Todd said he had tried cold over the region of the spine with great advantage in tetanus, in laryngismus, and in the convulsions of children; and though the case of tetanus which occasioned this statement proved fatal, he observed—"I have found it manifestly beneficial in diminishing the intensity of the spasms," and asserted that, as a general rule, cold has a powerful effect in what he called "depolarising the spinal cord." He had no idea, however, that it could be thus employed safely for any long time together, but, believing that "cold has a very powerful influence in diminishing both the force and frequency of the heart's action," he said to his pupils, "for this reason you must not apply it for too long a time, or over too great an extent of surface; you must watch your patient, and remove and re-apply it as his condition shall indicate." Dr. Todd did not imagine that the vaso-motor nerve centres could be influenced by cold along the spine. It was therefore impossible for him to suppose that the circulation and nutrition of parts distant from the spinal region could be increased by the application of cold in that region. As a general rule, cold properly applied along the spine does not diminish the force and frequency of the heart's action; and for a long time I was greatly puzzled in trying to understand how it came to pass that such an accurate observer as Dr. Todd made the statement quoted above. Undoubtedly, cold applied to the head, or to any considerable part of the body, *except along the spine*, will produce the effect ascribed to it by Dr. Todd; and, therefore, he may have inferred, very naturally, that the same effect will be produced by its application to the spine. He, however, asserts, as a matter of fact, that such an effect is thus produced; and I have now reason to believe that owing to the manner in which he applied the ice, he may, indeed, have observed the results he reports. Certain experiments which I have made, incline me to conclude that when a very narrow bag of ice—say one inch broad when full, is applied along the spine of an adult, it will, in some cases at least, exert a markedly depressing influence; whereas, a bag of ice four inches broad applied in the same case, will exert no such depressing influence. The facts observed by me, and tending to the conclusion just indicated, are, however, too few to justify any confident statement, but I hope they may stimulate enquiry. Meanwhile, I may say that considering the anatomical relations of the nervous structures in question, it seems to me not improbable that a very narrow column of ice will act mainly on the spinal cord, and that a broader one—say four inches broad for an adult—will, at the same time, exert a much more decisive influence than the narrow one can do on the collateral sympathetic ganglia. Now, as I believe the indirect influence of the spinal cord on the peripheral circulation, through the agency of its direct action on the elementary cells of the organism, is that of a stimulant, whereas the action of the sympathetic or vaso-motor nerve centres on the vascular system is that of a sedative, I can readily conceive that the sedative influence of cold *mainly* exerted on the spinal cord will depress the general circulation, while, if its influence be exerted with equal power over the collateral ganglia of the sympathetic it will not lessen, but rather increase both the force and volume of the peripheral blood-currents. Moreover, I can state confidently that the *relative* susceptibility to the influence of heat and cold of the spinal and sympathetic nerve centres respectively, differs greatly in different individuals, and in the same individuals at different times.

(To be continued.)

SELECTED CASES, DEMONSTRATING THE VALUE OF ELECTRICITY AS A CURATIVE AGENT.

By HARRY LOBB, M.R.C.S., L.S.A.

NO. II.—PARALYSIS FOLLOWING SCIATICA.

In my last paper, I described a case of rheumatic paralysis, and the paralysis following sciatica, or neuralgia, is very similar, and as regards the treatment, is precisely the same. The following case is interesting from the rapidity of cure:—

Mr. M., the well-known veterinary surgeon, consulted me last year for a very severe sciatica of the left leg, from which he had been suffering for three months, and for which he could get no relief, the pain of a very acute kind, darting down the sciatic nerve to the foot; he complained that he had not had two hours consecutive sleep for three months, and that he was nearly worn out with pain and fatigue. He certainly appeared much worn, and had evidently suffered much pain. He was very lame, and the leg was no use to him, as he could not bend it, or bear his weight upon it. The right leg was unaffected, and he managed to get on with this leg and a stick. He had been treated medicinally with alteratives, antacids, &c., and his diet had been properly attended to. He had also tried all the known nostrums, which friends so readily press upon the afflicted as infallible.

Considering the case to be one of pure neuralgia, requiring only the continuous voltaic current to be passed through the nerve in large quantities, to bring it back to its normal state, I at once applied a current from a Pulvermacher's 120 element battery, by applying the positive pole to the lower portion of the spine, by means of a wet conductor, and placing the foot in a basin of water brought it into the circuit with the negative pole. This current was allowed to pass for about twenty minutes, when I immediately put on two No. 0 bands, the positive pole on the lower portion of the spine, and taking a turn round the leg, the negative pole was placed beneath the sole of the foot—the bands being excited with one part vinegar to eight parts water, and retained in position by means of an elastic bandage.

Mr. M. called on me the next day, stating that he had had no pain since the application, and that he had slept the whole night. I, however, again applied the current from the battery and the bands, and as a precautionary measure, continued this for a fortnight, but he had no return of pain, and after a few applications of the interrupted electro-magnetic current, to stimulate to contraction the partially paralysed muscles, he rapidly regained the use of the limb, and in about a fortnight was perfectly well, and had quite lost his lameness.

Occasionally one sees a case of paralysis of the leg following sciatica of long standing, where the pain has ceased, perhaps, for months, or even years, and where the patient has not recovered the use of the leg. There is generally much wasting of the unused muscles, and some time is required to effect a perfect cure.

The following case came under my notice in my hospital practice, and is worthy of record:—

William Pratt, 5, Buckingham-street, Pimlico—paralysis of the right leg of two years' standing, following sciatica—has still some pain in the leg; the coldness of the limb

was remarkable; it had also wasted considerably, and it was stiff and useless.

Treatment—A Pulvermacher voltaic band to be worn from the back to the foot, wound round the leg, and retained in position by a bandage, the band to be excited every morning with one part vinegar to eight of water, and to be worn day and night. A powerful current from a Pulvermacher battery to be applied, by means of a metallic surface, to the limb direct current. This at once produced a return of circulation and warmth. By continuing the treatment for a fortnight he was quite cured, and could walk to and from the hospital with comfort and ease.

This is a remarkable case, from the length of time the patient had lost the use of the limb—namely, two years, and from the extent of the paralysis, from the wasting and peculiar coldness of the surface, as also from the rapidity of the cure. It appeared that on inducing circulation in the skin, a reflex effect had been produced upon the muscles through the cord, for a return of power was almost immediate upon a return of warmth to the surface.

I could relate fifty such cases as the above having a like result, but these two are sufficient to point out the nature of the treatment.

CÆCITIS IN AGUE,

By W. B. PEEBLES, M.B.

In the hot weather last July, a gentleman, aged 45, left off his warm inside clothing.

On the same day, after driving for several hours on an outside-car, he felt chilly, and towards evening had a loose motion of the bowels. They had acted well that morning. Next day he felt unwell. The bowels acted, but so unsatisfactorily that he took medicine the following morning. It did not operate, but some scybalæ were removed by an enema.

On the fourth morning I was telegraphed for, but did not arrive at his house till late in the evening. He was then suffering from tympanitis, eructations, vomiting, and strangury. The countenance was expressive of great anxiety; eyes sunk; tongue rough and deep-red at the edges, covered with bilious matter in the centre; skin soft, not moist; urine high-coloured; pulse weak, 72. In the right iliac fossa there was a hard swelling, painful to the touch, and pushing forward about two square inches of the surface of the abdomen slightly. There was also distressing ileus, increased, no doubt, by the presence of purgative medicine. The vomited matter was like coffee-grounds. The fact that some near relatives had died (one quite recently), when about the same age, with similar symptoms, increased the alarm which his state occasioned.

Had there been vascular turgescence, or a tolerably full habit, venesection would, I think, have been indicated, but my patient was weak and very spare, with a predominance of the nervous element.

I had the cæcal region leeched and poulticed, and directed calomel and opium, of each a grain, to be taken every hour. A comparatively easy night followed, but there was no sign of coming relief from the bowels in the morning; nor did a large basinful of soap and water, passed up through the long tube, produce any other effect than that of washing away a castor oil and turpentine enema, which had remained a considerable time in the rectum unfelt by him.

He was then placed for more than an hour in a deep hip bath, at as high a temperature as he could bear—the water being frequently renewed. On faintness coming on he was removed to bed and rubbed with the hand till an extrication of gas took place, followed by a bilious evacuation not containing any solid matter. He continued to be relieved in this way interruptedly for several hours.

During the following four days he was worried by states of nervous excitement, and rapid variations in the pulse occurred. However, the cæcal swelling, which had been blistered and dressed with mercurial ointment, was subsiding. The bowels were acting from castor-oil, and there did not appear to be anything local to account for the symptoms; but the tongue grew dark-brown at the root and centre, continuing rough and dark-red at the edges; and continuous hiccup came on, which nothing relieved. It seemed to be connected with an inordinate secretion of bile. Ice at the epigastrium and in the mouth was agreeable, but not much more. Little nourishment could be taken. Sherry negus seemed to be that most relished.

On the 11th day, he sat up a little, but was not making much progress. The pulse was irritable, sometimes up to 100. Tongue still dark-brown. Bowels free, with much flatus. Pain on pressing cæcum slight.

On the following morning, at four o'clock, the weather being sultry a window was open for air, a severe rigor came on, with chattering of the teeth and trembling of the limbs, followed by the hot and sweating stages of a well-marked ague-fit.

He was put on five-grain doses of quinine. Next morning at half-past four o'clock another, much lighter, fit occurred and none afterwards, but the hiccup, flatulence, and browness of tongue remained.

On the 15th day, a "stitch" being complained of in the cæcal region, it was again blistered. In other respects he was improving. Tongue cleaner. Some desire for food. Pulse regular, 80.

On the 18th day, though very weak, he was out in a close carriage.

On the 28th day he was able to take a journey to the sea-side, where rapid improvement took place. The cæcal swelling had disappeared, but there was evidence of false membrane. Iodide of potassium ointment was rubbed in. In a fortnight he returned to active country pursuits.

In the following November he reported the bowels as becoming sluggish. Sometime later, after exposure to a cold north wind, he awoke one morning with pain in the old spot, shivering, and sickness of stomach. The bowels acted a little, increasing the pain.

There was a dragging pain when he lay on the opposite side. He took castor oil; got into a warm bath, and commenced quinine again with good results. As he thought that the thickness of the fæcal mass was less than it should be, and that it seemed to stop in its transit, I directed a principally vegetable diet, with the view of keeping the presumed narrowing portion of the bowel open by the passage of a larger mass, at the same time helping it through with a tumbler of artificial saline mineral water every morning. He was also to give up wine, porter, &c., and take a cup of milk three times daily. I wished to have a seton over the cæcum, but he did not like that, and continued the blistering.

The treatment was satisfactory, and in February of this year he reported himself as feeling perfectly well.

May 19th.—"Felt a slight pain, with swelling of one of the bowels like a rope, as if full of wind, with heart-burn." This was after a fatiguing week, and went off soon.

This gentleman's residence is on high ground, immediately over-looking an extensive flat which, in rainy seasons, is flooded. The very hot sun of last July, in drying up this, let loose the marsh poison, where the sudden leaving off of warm clothing had prepared a victim for it. I have ascertained that in similar seasons ague was not uncommon in the locality.

PURPURIC FEVER.

By L. CLARKE, M.R.C.S.E., L.A.H., &c.

I TAKE the liberty of sending you notes of a case of "purpuric fever," which came under my observation within the past few days.

John Haskins, a fine boy, aged four years, whose parents reside at 53, Francis-street, in this city, was brought to my surgery by his mother and aunt, on Tuesday, the 2nd inst., at half-past six P.M. The child was unusually tall and strong-looking for its age, the mother stating that he scarcely ever had been sick. He had partaken of break-

fast that morning heartily, and had been playing about as usual until 10 A.M., one hour after breakfast, when he was suddenly seized with severe rigors, and complained of sick stomach and uneasiness about his chest, soon after followed by vomiting (which continued until the time he was brought to me) whenever he took a drink of water, and he partook of nothing else.

On looking at the countenance, it exhibited an expression more of weariness than stupor; he was dozy, but easily roused; the eyes were suffused; the conjunctiva not congested, and the pupils normal. Still there was great general prostration; the skin was hot and dry; pulse 125; tongue creamy. No spots of any kind on face, chest, abdomen, or back. On examining the arms, I found them pretty thickly dotted with spots varying in size from that of a snipe-shot to duck-shot. These spots were peculiar in colour, what I would describe as "dusky fawn;" no lividity or deeper tinge of any kind; their situation, too, was peculiar; they were confined to the anterior and outer surfaces of the arms in their entire length, the inner and posterior surfaces being perfectly free from discolouration of any kind.

The same description applies to the thighs and legs, the spots being similar in colour and locality.

The bowels had been confined since the previous day.

I prescribed calomel gr. iii., pulv. jalap co. gt. xvi., pulv. aromat. gr. ii., to be divided in two powders, one to be given immediately, and repeated in four hours if necessary; a mustard bath up to the abdomen, and a sinapism to the epigastrium, requesting the mother to send for me in the event of the child becoming worse.

The subsequent history of the case until death took place, in 22 hours after the rigors set in, was supplied to me by the mother. She carried out my directions in every way. The bath and sinapism seemed to have given a temporary check to the vomiting. The first powder, given at half-past seven o'clock, remained on the stomach for an hour and a-half; vomiting then returned, and continued at half-hour intervals. At eleven o'clock she gave the second powder, and at twelve o'clock it operated. At half-past twelve a slight convulsive attack occurred, confined to slight twitchings about the mouth, and spasms of the left arm. A second attack took place in an hour afterwards, in which the spasms were in the right arm, the left being undisturbed. Thus they occurred alternately, sometimes both superior extremities being engaged simultaneously, but none of the fits were of a very alarming character until three o'clock A.M., when a severe convulsive attack took place, when, to quote the mother's description, every bit of him worked for five minutes, and then his legs stiffened, and he remained quiescent for a quarter of an hour. The father was about coming for me then, but the mother observed that his eyes were insensible to light, and she said there was no use. From this until he died, at half-past eight A.M., the convulsions recurred every ten minutes or so. The father came to tell me of the death, and I requested him not to allow anything to be done to the body, until I would see it in four hours. I saw it then, when it presented the following appearances:—The expression of the countenance was calm; the colour had a lurid tinge; there were numerous small spots, of the dusky fawn colour I described as being on the arms, &c., the previous evening; there were no darker spots on the face; the pupils were dilated; the chest had a lurid colour also; the spots numerous; a good deal larger, and were of a pale livid colour, getting deeper in hue as they approached the abdomen. The abdomen was pale, livid, with numerous spots the size of small peas, muddy purple in colour; the anterior aspect of the arms a shade deeper than the chest, the spots the size of peas in places confluent, forming irregular patches, varying from two to four lines in their long measurement, by one to two, transversely the nails and first phalanges of the fingers, which were in firm spasm on the palms, were of dark purple, gradually paling as the colour ascended towards the wrist and fore-arm; the anterior aspect of the thighs and legs, presented appearances analogous to those of the arms. On turning the body over, the entire back presented a livid purple colour, the mesial line covering the spine in its entire length, being, if anything, of a blue-black colour, and the thighs and legs deep purple.

I will not be vain enough to express an opinion as to the pathology of this terrible malady, but I must express my belief that since its first invasion, the city has never been free from it, and that it is still dangerous, and in active existence.

Hospital Report.

GUY'S HOSPITAL.

A CASE OF DOUBLE NIPPLE IN A WOMAN ÆT. 40.

Under the care of Mr. THOMAS BRYANT.

Case 1.—Sarah P., æt. 40, a married woman, the mother of eight children, came under the care of Mr. Bryant on Sept. 25, 1862, for some chronic inflammation of one of her breasts, and it was during his examination that Mr. Bryant discovered a second nipple.

It was situated below the right breast, about six inches from the true nipple, in a direct line downwards. It presented all the external features of a natural nipple, without areola, and had grown since the woman had been married—indeed, the patient stated that before her marriage it had existed only as a small brown mark.

PEDUNCULATED FIBRO-CELLULAR GROWTH OF THE NIPPLE.

Case 2.—Ann S., æt. 27, came under Mr. Bryant's care at Guy's Hospital in May, 1864, for a pedunculated growth, the size of a haricot bean, growing from the extremity of the right nipple. It had existed for two years, and appeared as an outgrowth from the nipple, having the same colour and external appearances. The woman wished to have it removed, as she was about to be married. Mr. Bryant examined the growth, and found it to be made up of fibro-cellular tissue.

SEBACEOUS TUMOUR OF THE AREOLA OF THE NIPPLE.

Case 3.—Mary C., æt. 22, came under Mr. Bryant's care at Guy's Hospital, March 5, 1863, with a small tumour, the size of a nut, situated on the margin of the areola of the left nipple. It had been growing for five months. It was excised, and a good recovery followed.

PEDUNCULATED SEBACEOUS TUMOUR OF THE AREOLA.

Case 4.—Susan D., æt. 42, applied to Mr. Bryant, at Guy's Hospital, June 13, 1863, for a tumour hanging from the areola of the left nipple. It was pedunculated, and was the size of a small nut. It had existed for three and a-half years. When removed it turned out to be of a sebaceous kind.

Foreign Medical Literature.

INVESTIGATIONS RESPECTING ARTERIAL DILATATION AS A RESULT OF NERVOUS IRRITATION.

By Dr. CHRISTIAN LOVEN.

TRANSLATED FROM THE "HYGIEA" FOR NOVEMBER, 1866, P. 425.

By WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY, AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

(Continued from page 29.)

After the possibility of thus explaining the increased circulation is removed, only two others remain: either the current in the penis received a fresh accession of impulsive forces, not proceeding from the heart, or the blood moves under normal pressure, and only the resistance in the course of the circulation, which impedes its entrance

into the caverns, is diminished—that is, the walls of the small arteries are relaxed.

The choice between these alternatives is in some degree rendered difficult by the fact, that precisely where the dilatation should occur to be efficient, it is not so easily demonstrable, as in other parts of the body. Eckhard justly remarks, that the trunks of the dorsal arteries of the penis are not dilated, and in fact, if the relaxation were limited to these trunks, it would have little influence in increasing the circulation through the penis, as the largest amount of resistance must be sought precisely in the smallest arterial branches. As to the correctness of this assertion we shall presently satisfy ourselves in speaking of division of the pudic nerve.

The small arteries supplying the caverns cannot, of course, be freely dissected without giving rise to a hemorrhage which obscures the whole field of operation. No other mode of investigation therefore remains than that employed on the ear by Cl. Bernard among others, to show the results of irritation and paralysis of the sympathetic.

For the point in question we must, therefore, carefully remove cut by cut of the corpora cavernosa, and especially of the corpus cavernosum urethræ, in which the current is most rapidly and powerfully altered, until we meet with small, separate, bright red streams emitted in jets. If now, after this has been done, the nervi erigentes be irritated, we soon observe that the bright red streams, squirting up to a height, yield a large quantity of blood, corresponding to that before seen on similar irritation, when only the corpora cavernosa were opened by the cut. This experiment, which invariably succeeds, shows that the flow of blood from the arteries into the caverns is not promoted by any kind of attractive force, but, on the other hand, it does not inform us how far, instead of a relaxation of the walls of the small arteries taking place, the blood may not possibly acquire some new circulating forces. To decide this latter point, I determined the pressure under which the blood in the corpus cavernosum stands at the maximum of erection ; at the same time, of course the pressure in the carotid was also measured.

The manometer, which indicated the pressure of the blood in the penis, was either introduced into one dorsal vein with the canula directed towards the root of the vein, while the other dorsal vein was closed with a ligature, or the urethra was divided behind the bone of the penis, the bladder was tied, the mucous membrane of the urethra was scarified through a considerable extent into the caverns, and the canula was tied in the opening into the urethra. In this mode I obtained the following numbers :—

Number of experiment.	Nervous irritation.	Mean pressure in penis.	Mean pressure in carotid.	Penis pressure. Carotid pressure.	Remarks.
		I.—Little Dog.			
1	On one side	46 mm.	95 mm.	0·50	Canula in the scarified urethra.
2	,,	50 ,,	112 ,,	0·45	
3	,,	30 ,,	91 ,,	0·33	
4	,,	19 ,,	51 ,,	0·36	
		II.—Medium Dog.			
1	On one side	36 mm.	95 mm.	0·38	Canula in one dorsal vein, the other closed.
2	On both sides	47 ,,	93 ,,	0·50	
3	,,	38 ,,	74 ,,	0·51	
		III.—Large Dog.			
1	On both sides	67 mm.	110 mm.	0·60	In dorsal vein, the other closed
2	,,	48 ,,	116 ,,	0·41	In dorsal vein, the other open.
3	,,	67 ,,	116 ,,	0·48	In dorsal vein, the other closed

Supported by the observations communicated respecting the erection-pressure, we may, as I believe, with perfect safety, recognise the view, which is also from analogy the most probable. According to it, nervous irritation promotes the circulation in the caverns of the penis in such a manner, that the walls of the smallest arteries are relaxed, and their bores are consequently considerably dilated by the pressure of the blood. In favour of this theory is the result of the experiment, in which, after cutting away a great part of the cavernous walls, the stream from the divided small arteries could be so distinctly increased by nervous irritation, and with the same view the fact completely harmonizes, that the pressure under which the blood stands in the erected penis, amounts, at the most, to 0·6 of that with which the blood flows in the carotid. The former of the experiments mentioned shows, that the apparent dilatation of the small arterial currents of blood, is not dependent on any kind of influence of the cavernous tissue, and the latter, that it is not necessary to have recourse to any new impelling forces, as the pressure of blood prevailing in the larger artery (the carotid), is fully sufficient to cover the forces in action in erection.

Were we to go a step further, we might consider the nervi erigentes as analogues of the cardiac branches of the vagus, and the ganglia lying along the same nerves at the root of the penis, as antitypes of the ganglia met with in the muscular structure of the heart. In making this comparison, we must, however, not forget, that it is indeed calculated to explain a number of phenomena, but that, nevertheless, no direct proof of the same can be adduced.

B.—Some remarks upon erection in the dog.

All investigators are agreed upon this, that for the production of erection, three things are necessary ; increase of the affluent, and restriction of the effluent stream of blood, and extensibility of the walls of the caverns. A few words as to the importance of each of these three conditions.

It is well-known that in the trabecular tissue organic muscular fibres are met with. These, as well as the circular fibres in the arteria dorsalis penis, are under the influence of the pudic nerve. This is proved by the following experiment. If we irritate the peripheral stumps of the divided nervi pudendi while the penis is collapsed and divided, the hæmorrhage is diminished, and the amputated margins of the corpora cavernosa become retracted. If the penis were, on the contrary, immediately before the irritation of the pudic nerve, turgid from irritation of the nervi erigentes, the hæmorrhage is first increased for some seconds, but directly thereupon completely stops. If we again direct our attention to the dorsal artery, when about to divide the pudic nerve, we shall see that the artery after the performance of this operation, increases considerably in diameter, and that the pulsation in it becomes more active ; notwithstanding which, neither erection occurs, nor is the flow of blood from the divided corpus cavernosum remarkably increased. We should thus perceive that the pudic nerve, and the formations depending on it, exhibit this influence on erection, that through the contraction of the latter, the swelling of the member is rendered impossible, inasmuch as through their action the most important afflux of blood is arrested. On the other hand, we cannot deny that every diminution in the normal tone of the pudic nerve must promote erection, as thereby some of the resistance placed in the way of the dilatation of the caverns and the afflux of the blood is weakened. It, however, remains undecided whether, as Kölliker thinks, in normal erection a reflex depression of the pudic nerve always occurs.

Eckhard has already fully put forward the importance of the nervi erigentes ; on irritation of these nerves the corpora cavernosa of the penis and urethra certainly swell, but the pressure of the blood in them, as the measurements given above show, by no means attains its highest value, and the bulb of the gland did not swell at all.

The maximum of pressure and swelling in this last-named part occurs first, when the current of blood is interrupted in the returning veins, and especially in the dorsal vein. To this object serves a muscle, first described by Houston, and whose relation to the dorsal veins is to be found represented in Eckhard's treatise. If, in the living animal, while the nerves of erection are irritated, we imitate this obstruction of the veins by applying a ligature

around them, the glans in a few moments swells to such a size, that the prepuce can no longer be drawn over it. I need not specially state that the reflux of the blood from the penis is not completely interrupted by this tying of the dorsal veins, for, as is well-known, other referent veins, described by Eckhard, also exist. These last named are, however, of very subordinate importance, of which we may satisfy ourselves by a very simple experiment. If, after having, by irritating the nerves of erection and closing the dorsal veins, produced the greatest possible swelling of the penis, we discontinue the irritation, but leave the ligature untouched, the member diminishes only very slowly ; if, on the contrary, the dorsal veins be opened, it suddenly collapses.

Reviews.

ON OVARIOTOMY. By T. Bryant, F.R.C.S. London: J. Churchill & Sons.

Mr. Bryant's series, entitled "Clinical Surgery," has received in all directions so much commendation, that we need only say that this treatise on ovariotomy is bound up as number seven of that issue to make it welcome to a large number of readers. It may, however, be considered as also independent of the other volumes, and of course complete in itself.

Mr. Bryant has operated on twenty-eight cases ; of these seventeen have recovered, and eleven died. Of the deaths, two were cases in which both ovaries were removed. Of the last of these we furnished a report at the time it was in Guy's Hospital.

The book opens with a chapter discussing whether ovariotomy is a justifiable operation. Upon this subject little need be said here. The operation has, in spite of great opposition, made its way, and is now pretty generally recognised in Great Britain. It is true that some few remain unshaken in their convictions by the brilliant success that has been achieved in this country, but the few are constantly becoming fewer, and when we think how really rapid the progress has been, we may partially understand their unwillingness to recede. Abroad there has been more opposition and less success. Let us hope that this may change. The history of the operation is next briefly and lucidly sketched, but we do not notice any new facts in this chapter, and we may therefore pass on to the very important subject of the causes of death in ovarian diseases. Mr. Bryant's book contains a very valuable contribution to our knowledge on this subject, being no less than analysis of the records of the post-mortem room at Guy's. From this source eighty-eight cases have been collected, and all the information that could be obtained about them has been tabulated by Dr. J. J. Phillips, the demonstrator, and forms the appendix to Mr. Bryant's work. Only eight of these cases are described as monocystic, fifty-six being polycystic, composite, or colloid, sixteen malignant, and eight dermoid.

As to age, death took place in four cases under the age of twenty ; in six cases between sixty and seventy ; and in two between seventy and eighty. As to duration, 75 per cent. of the cases lasted less than two years.

A very important point is brought out in reference to adhesions, which are mentioned as having been met with in sixty-six of these cases. These adhesions were differently distributed, according as treatment had been resorted to or not. Thus they were found in seventy-two per cent. of the cases that had been tapped, and in only twenty-seven per cent. of those which had not been interfered with. Here is a difference of forty-five per cent. in reference to one of the most important complications where ovariotomy is resorted to. On this, Mr. Bryant remarks :—"These facts seem to suggest that the operation of tapping cannot be regarded as very safe or expedient. It has its own risks, which should always be taken into account, having apparently been the direct cause of death in a large proportion of the cases in which it has been employed.

"They seem to indicate that it should not be undertaken in a case in which the operation of ovariotomy can be entertained, nor in any other, unless an urgent necessity exists ; for it evidently hastens the end, in not a few instances, by directly exciting peritonitis or suppuration of the cyst, or both combined."

This extract, besides the direct interest of the facts it contains, will serve as a fair specimen of Mr. Bryant's style. The whole of the book is written as tersely and clearly as this. Having said so, we return to these records of Guy's post-mortem room, to observe that nine of the cases are said to have had a communication between the cyst and the viscera. Of these, one had ulcerated into the ileum, one into the cæcum, four into the colon, and three into the rectum. It thus appears that the large intestine was the part through which the escape was effected, in eight out of nine instances. In one case the bladder was also penetrated. In one case the cyst made its way through the parieties of the abdomen.

The questions, when, and under what circumstances ovariotomy should be undertaken, are very fully discussed by Mr. Bryant. The operation is then fully described in all its details, and after this the twenty-eight cases are recorded in full. Of course, these must be studied thoroughly by those who wish to understand their merits, or derive all the benefit from the book that is possible. We may remark that Mr. Bryant appears to have frequently cut off the ligature and dropped into the abdomen, but he does not seem at present to have adopted the actual cautery for division of the pedicle, although he speaks of it with the greatest candour.

We have not space for further analysis of one of the most practical contributions to the pathology of the ovaries, that has lately appeared. The tables contributed by Dr. Phillips, of which we have given a sketch, contain a mass of information that will not fail to be appreciated, and which cannot be further abridged.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By Austin Flint, M.D., Professor of Medicine in the Bellevue Hospital. Second Edition. Philadelphia : H. L. Lea. London : Trübner & Co.

The work of Dr. Flint is already so favourably known in this country, that the mere announcement of a new edition, revised by the author, is a sufficient guarantee of the value of this portly volume. We are not sure that the Americans are not far excelling us in this class of literature. They have a way of doing things thoroughly, which is seldom equalled, and, perhaps, never surpassed. So exhaustive was the first edition of Dr. Flint's treatise, that we could scarcely have expected as much revision in a new issue called for so soon. We find, for example, the chapter on Pyæmia is now completely re-written ; and, to show how every branch of medical literature has been watched by the author, we may mention that Mr. Savory's papers on this subject, in Guy's Hospital reports, have been duly consulted.

We have also new chapters on general Cerebral Paralysis, on Polyuria, and on Pertussis. It is, perhaps, curious how the omission of the last-named disease from the former edition should have occurred. It is, however, now supplied.

Another part of the work that has received additions is that which relates to Epidemic Cholera. We turned to this with considerable interest, to note Dr. Flint's conclusion respecting elimination. He is far removed from the parties to the controversy that has raged on this question, and so far is likely to be, an unprejudiced reader of both sides. He pronounces distinctly against Dr. Johnson's views, considering them to be "purely conjectural." He does not, indeed, enter very fully into the controversy. It is not, in fact, within the scope of his work to do so, but he furnishes a sufficient outline of the doctrine, and gives his own opinion of its value in the two words we have quoted.

Having discussed Dr. Snow's opinions under the head of "Causation," Dr. Flint writes thus :—"After a careful reconsideration of the question of the communicability of cholera, it seems to me that this view of the causation is rendered untenable by the considerations that have been prescribed. The occurrence of numerous cases, either simultaneously or in quick succession, at points so far removed from each other, that there could not possibly be any communication ; the rapidity with which the epidemic reaches its climax, and the brief duration of the epidemic, are facts entirely irreconcilable with the theory which attributes the diffusion of the disease exclusively to a virus contained in the excreta, or to an infectious miasm."

As to treatment, Dr. Flint believes that he has frequently succeeded in arresting this disease by means of a full opiate. He prefers a full dose of one of the salts of morphia, placed dry upon the tongue. This is the most likely to be retained, and a full dose presents the best opportunity of speedily affecting the system. A grain of either of the salts of morphia, is rarely, if ever, too much, and some risk of inducing narcotism is to be justified by the urgency of the disease. After collapse

has set in, this treatment is admitted to be not only inappropriate, but sometimes injurious. At this period Dr. Flint resorts to astringents. We shall scarcely be expected to enter into his accounts of other diseases now included in the work. Indeed, we doubt whether it is quite fair to select them, and shall therefore proceed to describe this volume a little more generally, first of all, only premising that every department is brought down to the latest date, an illustration of which we may give in the fact that thermometric observations in disease are very properly included.

The work consists of about a thousand pages of large octavo in very readable type. It is not too bulky, because the paper is of fine texture. The edges are cut, as in all books of this size they ought invariably to be, and the binding is strong—another important point for the purchaser. The arrangement adopted is simple. The first portion of the work, about 120 pages, is devoted to general pathology, and here we have excellent descriptions of all the anatomical changes in the solid parts of the body, and the various morbid conditions of the blood, as well as summaries of etiology, symptomatology, prophylaxis, and general therapeutics. Every line of this part of the book is most carefully done, and as a separate production it would rank high as an epitome of the principles of medicine. The second part, of course the larger, is devoted to the practice of medicine or special pathology. The author begins with the respiratory system, then passes on successively to the circulatory, digestive, and nervous. Then comes the genito-urinary system, and lastly, fevers and general diseases.

It is scarcely worth while to dwell upon the deviation from the order to which we are accustomed in most text-books. Suffice it to say that when we came to read Dr. Flint's treatise, we found the classification he had adopted as natural as others. Everything seemed to fall into its place in the course, and we look upon the whole, now we have gone through it, as a most satisfactory exposition of the principles and practice of modern medicine. If requested to signalise its better portions, we might be tempted to name the diseases of the respiratory and circulatory organs, the descriptions of which are most careful and accurate, and would serve as models of conciseness and completeness. At the same time, a similar commendation on the account of diseases of the brain and nervous system generally is equally deserved. The same remark is applicable to other parts, so that, as a whole, we can confidently recommend this volume to both students and practitioners. The former may make it their text-book, and the more familiar they are with it, the more easily will they pass their examinations.

The latter should, first of all, peruse it to refresh their memories, or to bring them *au courant* with the most advanced state of knowledge, and then place it on a handy shelf, that they may use it constantly as a book of reference on the many points that continually turn up in the daily routine of practice.

THE HUNTERIAN ORATION: Delivered before the Royal College of Surgeons of England, by JOHN HILTON, F.R.S., Senior Vice-President. Published by request. London: Bell & Daldy.

THE saints of the Comtist Callendar are the great men of all ages and nations. In the saint-making part of their system, the Posivtivists cannot claim originality; for there is scarcely any School, College, Hospital, or Institution which has not one or more patron-saints of this type whose memory is periodically extolled.

Among canonised surgeons, John Hunter is deservedly foremost. The privilege of framing and delivering the oration for 1867, in memory of John Hunter, was allotted to Mr. Hilton, and the result proves that it could not have fallen into better hands. Mr. Hilton has shown himself not only capable of rightly estimating the greatness of his subject, but also of appreciating the real purpose of such orations—a purpose "much higher than that of the mere laudation of Hunter." As he says, it is "to perpetuate the *mind that was in John Hunter*, as well as to honour his grand contributions towards the erection of surgery into its present scientific position; to inspire Hunter's successors with the same ardour of professional pursuit, the same unwearying industry, the same appreciation of the unalterable power of facts which enabled *him* to accomplish so much."

Treated in this spirit, this biennial tribute becomes no mere empty commemoration of the dead, but a motive stimulant to the education of the living; for we need now, as much as ever, the examples of such men as Hunter to be brought forcibly to our minds. In all departments of science we are liable to be intoxicated by past successes; there is still a tendency to forget the patient plodding which rendered those successes possible, and to be led away by enticing theory or startling paradox, if it but possess an attractive brilliancy. It must *be profitable even now* to reproduce the evidences of the wisdom which guided the Father of Scientific Surgery, who spent his years in working out, alone and under difficulties, those problems in the phenomena of life of which he first recognised the importance.

His difficulties, Mr. Hilton remarks, were defective education, the disheartening opposition of his contemporaries, and, in his latter years, the failure of his health.

A higher order of education *might* have smothered, in Hunter's case, the originality of thought which was his great characteristic; but general *instrumental* education must have been continually, and perhaps painfully, felt by one who was so constantly called on to convey to others ideas which he had originated. Mr. Hilton, indeed, quotes Hunter's own recognition of this defect, in reference to his work on Venereal Disease, where Hunter says—"I meet a committee of three gentlemen to whose correction every page is submitted."

To the neglect or ill-will of contemporaries Hunter opposed his firm faith in the truth of his own conclusions, based, as he knew them to be, upon facts—a faith which enabled *him*, as Mr. Hilton says, to show "the high-minded indifference of the philosopher to the petty assaults of ignorance." The manly, honest, but melancholic recognition of his heart disease he expresses with his habitual terseness," "my life is at the mercy of any scoundrel who chooses to put me in a passion."

The grand feature of "the mind which was in him," and that which Mr. Hilton seems most desirous to inculcate, is his compensation for defective education by indomitable perseverance in the collection of facts, his marvellous power of reading at once the meaning of the facts, and his natural perception of the inductive process, as opposed to the formation of hypotheses, by which he approached the most abstruse problems of life in the cautious and single-minded spirit of the truth-seeker. This quality of his mental bent is lucidly exemplified by a contrast between the studies of Darwin and Hunter in treating the same subjects; and Mr. Hilton shows how nearly, by this method of thought, Hunter all but trod upon several of those important generalizations, which are taught as familiar truths in the present day—truths owing their confirmation, in great measure, to the suggestions and conclusions so modestly put forth by Hunter.

Our space admits of the notice of but one more point in Hunter's scientific character to which Mr. Hilton alludes—one which we conceive to be worthy of all imitation, especially at the present time. Where he could observe facts, but was at a loss to account for them, he refrained from speculation, and left his bare observations on record for the assistance of those who might, in after times, attempt the solution of problems in which he had failed. Few people are content to do this now.

We cannot conclude our notice of Mr. Hilton's oration without applauding the plain, clear language in which he has clothed his thoughts. We note, with relief, the absence of the pedantic technicalities with which scientific men are too apt to load their writings and speeches.

It would be strange if we did not find here and there some sentence which would be the better for a little trimming. Another "revise" would probably have checked the somewhat hazy and luxuriant growth of metaphor in the passage—"How rarely have the great intellectual *luminaries* of any age had *kindred spirits* to sympathize with *their efforts*. As a rule, their *special value* has been *gauged* by succeeding generations rather than by their own."

But such criticism is trivial when weighed against the earnest appreciation of his subject, and the painstaking determination to do it justice, which Mr. Hilton evinces throughout this interesting and most valuable oration.

As a concise exemplification of the process of enquiry which conducted Hunter to his great achievements we earnestly recommend it to the notice of our readers.

CURRENT LITERATURE.

Wine and its Adulterations, by James L. Denman, is a small pamphlet, the chief object of which is to show the value of Greek wines. Mr. Denman is a great opponent of the system of adulteration which is constantly practised, and he denounces as fraudulent the "fortifying" of

wines, which is almost universal. He maintains that pure Greek wines contain sufficient alcohol without the addition of brandy, and strongly recommends a trial of them to those who like a full-bodied generous wine. The following extract shows the drift of the argument:—

"I beg my readers to remember a fact particularly worthy of notice in connection with Greek wines, viz., that until my introduction of them, no wines had ever been offered that could in any way compete, in point of intrinsic quality, with the supposed strong wines of Spain and Portugal, whose chief strength consists in added alcohol, not in vinous power. Not content with their natural strength, Port and Sherry are invariably fortified with from 10 to 25 per cent. of spirit; yet, in spite of this addition, Greek vintages will be found, upon testing both of them side by side, to possess more body, and be far better able to bear the addition of water, and their merits are best exemplified by comparison with the choicest growths of other countries. Nobody seeking what are called dry wines, would think of buying either cheap Port or Sherry, for these are invariably sweet and hot; on the other hand, no one in the habit of drinking those compounds could, at one bound, relish the pure qualities of Greek wines. Moderate as they are in price, they must be tested to be properly appreciated by the standard of the highest-priced wines. Compare, for instance, the red *Keffesia* at 20s. with Burgundy at 40s., or older Keffesia with the finest Burgundies; in the same way the white *Keffesia* with Chablis or Sauterne, the white *Patras* with Hock, the old *Thera* with Madeira or Sherry, *Santorin* with very fine old dry Port, the *Como* with fine full-bodied rich Port, the *St. Elie* with Amontillado or Montilla, and taste one with the other, with and without water."

Those interested in the discussion that has lately taken place between Dr. Carpenter and Professor King, will be glad to have their attention directed to Mr. Davidson's article entitled "Perforate and Imperforate Brachiopoda," in the *Geological Magazine*, which also contains an article by Mr. Bonney on "Glacial Action near Llandudno."

The *Journal of Botany* contains a scientific account of the hair parasite that gave rise to the sensation paragraphs on chignons.

The *Quarterly Journal of Science* gives a summary of the Sanitary Influence of Water, by Dr. Frankland. We have lately published *in extenso* Dr. Frankland's lecture on the Metropolitan Water Supply, so that our readers are well acquainted with his views.

The second number of the *Journal of Cutaneous Medicine* is signalised by a paper on the "Pathology of the Skin," from the pen of Mr. Erasmus Wilson. The editor also gives us a chapter on the "Culture of Dermatology."

The *Journal of Mental Science* supplys a lecture introductory to a course on Psychiatry at the Imperial Academy of Vienna, by Baron Mundy, M.D. We notice that at the coming annual meeting of the Medico-Psychological Association, a paper is to be read by Baron Mundy, entitled "A Comparative Examination of the Laws of Lunacy in Europe." Other papers are announced by Drs. Davey and Tuke.

SUPERIOR EDUCATION IN SPAIN, 1867.—The number of students inscribed in the ten Spanish Universities for the student year, 1867, is 10,289; 728 more than in 1866. Classed as follows:—3541, law; 2573, medicine; 1861, sciences, 1209, philosophy; 658, pharmacy; 234, notarial; and 213, theology. It is astonishing that in a country so Catholic, at least in name, as the Iberian peninsula, that this last number is so small. It is evident, on the contrary, that philosophy always flourishes there. The famous University of Salamanca has lost much of its ancient prestige, as seen in the present limited number of its students, 197 out of 10,289! On the contrary, Madrid reckons 4271; Barcelona, 1492; Valencia, 1067; Valladolid, 915; Seville, 688; Santiago, 474; Saragossa, 275; and Oviédo, 172. Salamanca has thus passed into the last rank. How fallen since the days of Gil Blas of Santillane!—*L'Union Médicale.*

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 17, 1867.

MEDICAL CORPORATE REFORM.

MANY of our readers, in common with ourselves, must hail with a lively satisfaction the rapid progress of Reform at the Royal College of Surgeons of England—a Reform so greatly needed, and yet so long delayed. Arduous as was the commencement of the work (for it is hard to overcome moral inertia), it now speeds fairly, and is full of promise for the future. Men may, for a long time, be tolerant of *wrong*, or powerless to redress it, but, sooner or later, its *Nemesis* appears. Every change in the administration of Corporate bodies, made in conformity with the requirements of the time, and based upon the national principle of fair play towards all the Members which compose it, must not only be, *ipso facto*, beneficial, but tend especially to foster that deep feeling of loyalty which alone can confer on such an Institution permanent stability and power.

The Fellows of the College of Surgeons of England have set a noble example to their brethren of the College of Physicians, an example they perforce must follow, and the sooner the better for all concerned.

We last week incidentally alluded to the antiquated government machinery of this College. We have often suggested, and would now strongly urge an immediate and comprehensive measure of reform. With regard to its internal management generally, it does not behove us now to speak. The remedy for abuses rests with the large Liberal section of the Fellows—men of high honour, accomplishments, and energy. Our more immediate subject matter for the moment concerns the present method of election to the Fellowship, a method so notoriously unsatisfactory as to call for radical change. Indeed, to those who have watched the annual elections to this honour, its bestowal would appear in many instances to have been the result of caprice, or of direct favouritism, rather than that of a deliberate and impartial adjudication according to the standing of the member elected. No wonder, then, a feeling should gra-

dually gain ground in the Profession that the Fellowship is not the honest reward of Professional merit. When this belief shall have become general, both among the Profession and the public, this once coveted honour will find the level of its real worth. The College of Physicians of England may then be regarded as a Club—one of gentlemen, certainly—but not as a body using the power delegated to them for a time of dispensing the honour of the Fellowship according to the spirit of the charter. Until this time arrives, however, we must protest most strongly against the injustice done to many senior members by passing them over for years successively, and by electing their juniors in standing, and, assuredly, not their superiors in honest work.

To aspire to an honourable position in any community to which we may belong, is both natural and commendable; the honour to be gained furnishes the incentive to use becoming means for its acquirement; to seek such honour prematurely or obtrusively, would betray a coarseness, nay, an immodesty, from which every refined mind would instinctively recoil. Still, even forbearance has its proper limits, and these o'erstepped, its exercise might even admit of misconstruction. A time might arrive when it would no longer be a question of honour to be gained, but one of gross injustice to be redressed. When members are unfairly passed over year after year, they become within the College land-marks for comment, to be regarded either as the drones of the community, or, as men wanting in the moral requirements for election, while outside the Corporation, they may be unfairly supposed to be inferior to those who have been provided. This would appear to us one most pressing evil, and we have no hesitation in urging upon the Liberal section of Fellows, a more equitable adjustment of the mode of their election.

CHANGES AT THE LONDON COLLEGE OF SURGEONS.

The spirit of progress seems to have entered this Corporation much more thoroughly than had been anticipated. We have already fully commented upon the successful return of three new members to the Council, and expressed the general hopes of the Profession respecting this event. The observations we have felt called upon to make have, we believe, been generally endorsed by those who have paid attention to the subject, and even the warnings to which we have given utterance have found an echo in unexpected quarters. Thus encouraged, we shall continue our task with the same independence that has hitherto characterised our Journal. Untrammelled by any party, regardless of every clique, we seek but the general interests of the Profession, and cannot but be satisfied with the wide-spread approval that has been expressed of the course we have adopted; and so it is with all the other questions that now and again agitate our body.

Last week, the newly-elected Councillors were sworn in, and commenced their important duties. At the first meeting an Examiner had to be elected, in consequence of the first term of Mr. Kiernan's tenure of office having expired.

It was thought in many quarters that this gentleman would offer himself for re-election, but with a moderation and modesty that accords well with his scientific attainments, he declined to do so, and thus set an example of making way for others that we would gladly see more common in officials. This prudent act will be the greatest protest against future monopolists, and by it Mr. Kiernan proves himself a sincere well-wisher of the College, of which he is a distinguished ornament. Into his retirement from official life, he will carry the goodwill of the immense majority of the Fellows and Members of the College, and the consciousness of this cannot fail to be grateful to one whose scientific reputation is acknowledged to be of the very highest rank.

The successor chosen to the Examiner's Chair is Sir William Fergusson, who was the next in order below the court. Not a word need be said of such an appointment. To have passed over the name of Sir William would have been almost impossible, had it been desired to break down the system of promotion by seniority. Therefore, when his turn came, and the retiring Examiner did not offer himself for re-election, nothing remained but to install Sir William Fergusson in the position to which, years ago, he might justly have aspired.

Thus, during the present year, three new Examiners have been appointed—a fact altogether unprecedented. Well may the Reformers take hope, renew their determination to enforce all their rights, and urge the necessity of seizing so favourable an opportunity to complete their task.

And now about the Presidency. Mr. Hilton has been chosen President for the coming year. He was the Senior Vice-President, and his standing in the Profession such that this promotion also will give universal satisfaction. Mr. Hilton's fine mind commands respect in all directions, and his accomplishments cannot fail to lend lustre to the Presidential Chair—the highest dignity his College can confer upon him. The retiring President, Mr. Partridge, may feel that the good work he has begun will be carried out by his successor. For it should be known that to Mr. Partridge is due the credit of several of the improvements which have been inaugurated during his Presidency. To him, it is generally believed, we owe the innovations in the mode of conducting Examinations that have been so freely commended, such as the use of pathological specimens, the practical test of requiring Candidates to bandage and apply other

surgical apparatus, and the introduction of clinical examinations generally. We should add that Professor PARTRIDGE is an advocate for the plan of effecting some kind of union between the College of Physicians and the College of Surgeons, and above all, as chiefly affecting the Corporation over which he has so ably presided, he is prepared to try to effect some kind of communication between the Fellows of the College and the Council, so as to enable them to represent their views fully and authoritatively to those whom they elect to manage their affairs. It is in this direction that we look for real reforms. Until the whole body of Fellows —nay, until the Members also have some means of making themselves heard, little reforms in the Council and the Court of Examiners will fail to change the character of the Corporation, or convert it from a gigantic monopoly into a truly worthy representative of English Surgery. This is what it ought to be, and this is what the newly-elected dignitaries may greatly aid in making.

Notes on Current Topics.

THE EMPRESS CHARLOTTE.—The *Mémorial Diplomatique* gives a sad account of the state of the ex-Empress of Mexico, who remains in an alarming condition of prostration. It would appear that no means have been successful in rousing her attention, and that her once strong and cultivated mind is now such a wreck, that no effort has been made to impart to her the fact of her husband's sad fate. The same journal says :—

"As Dr. Illek had from the first made himself responsible for the cure of the Empress, Maximilian I., who had placed all his confidence in him, left him absolute master of the treatment to be followed. For that reason neither the Austrian family nor the Court of Brussels ventured to interfere in a matter so delicate. At the present time, the Emperor of Mexico having fallen under the murderous bullets of the Juarists, the rights of the two families will naturally be substituted for the authority of the husband. With that object, the Queen of the Belgians has left Brussels to be present at the family council assembled at Salzburg, and thence Her Majesty will proceed to Miramar."

As soon as the Princess is able to undertake a long journey, it is probable she will be taken to Lacken, where she passed her youth, and the scenery and reminiscences of which may revive her shattered mental powers.

THE HEALTH OF LONDON.—It is encouraging to find that the vital statistics of London continue favourable. For two or three weeks the mortality has been below the average. In the last weekly return of the Registrar-General, the deaths were 169 less than the estimated number. A death is reported from "purpura fever"; two from English cholera; fifty-four from diarrhœa; twenty-two from measles; nineteen from scarlatina; forty-five from typhus; and thirty-one from variola. The last figure is perhaps the one of most importance. An epidemic of small-pox in the capital of Jenner's native country says little for our estimation of his discovery, and furnishes a sad sequel to our comments on the insufficiency of the Vaccination Acts.

THE VACCINATION BILL.—This measure, to which we have devoted several brief notices, was, on Thursday last, referred to a Select Committee by the House of Lords. Such being the case at this late period of the Session, we presume it will be effectually shelved. Though we never felt enthusiastic about it, so much labour has been spent upon it that we might well have anticipated a better fate for it. Two or three earnest men might soon have given it a new shape, and by dint of successive alterations have transformed it as thoroughly as the Reform Bill has been changed since it was first introduced.

THE GRESHAM LECTURESHIP ON PHYSIC.—The Mercer's Committee have appointed Dr. Symes Thompson to be the Gresham lecturer, *vice* Dr. Powell deceased. There were several candidates for the appointment, which is worth £100 a-year, and requires the delivery of certain lectures in Latin and English every term. The leading candidate was Dr. Herbert Davies, who was last year a censor at the College of Physicians. Drs. B. W. Richardson, C. B. Radcliffe, Prosser James, Reginald Southey, Headland, and others, were also named as likely candidates for this office.

THE UNIVERSITY OF LONDON.—Another candidate put forward for this constituency is Dr. Miller. He is proposed in Liberal-Conservative interest. Mr. Lowe is also likely to receive support from the same party. We have all along expressed our desire to see a Medical Graduate elected, and in default of such a candidate, some one distinguished in science. It is impossible, however, to exclude politics from any such contest, and therefore, those who desire so to do, may at once make up their minds to disappointment. We apprehend that in time the political bias of every new University constituency, will be as well-known as that of each of the elder ones, and to bring forward a candidate of opposite views will be to court defeat. But there are medical men of all political opinions, and our desire is to see some of them in Parliament.

THE MYOGRAPH.—M. Rouget disputes the conclusions at which M. Marey has arrived from experiments with his myograph. M. Rouget is of opinion that the indulations only exist during a varying period when the excitant is not intense enough to completely contract the muscle. In proof of this he says that a strong electric current being employed there will be more of the vibrations marked when a weak current is used, but the muscular fibres will remain perfectly rigid.

CHOLERA.—From time to time news reaches us from various parts respecting this much-dreaded epidemic. In another column, we print some particulars that have been elsewhere published. Other advices have come to hand from Italy, which may well cause uneasiness; while in the Western Hemisphere the disease seems to have got a fair footing. Notwithstanding the capital state of the health of London, we cannot too often ask our sanitary authorities whether they are prepared.

THE CASE OF MR. R. T. FREEMAN.—We last week alluded to this case as one of a criminal charge against a dentist. The trial has now taken place at the Central Criminal Court, and the accused has been acquitted. Very few new facts were brought out at the trial, and the manner in which the jury returned the verdict is scarcely that we like to see. It turns out now that the accused is a qualified

medical man in general practice. The idea of his being a dentist having, no doubt, arisen from the charge made, being one of assault while under the influence of chloroform for the purpose of having some teeth extracted. The trial is one of such importance to the practitioner that we have given a full report of it in another column. It shows well the necessity that exists for medical men taking precautions to render such charges almost impossible. The servant of the accused in this case swore she was present during the whole time, and another witness deposed that the prosecutrix had told her that his cook was in the room. Had he been unable to have produced this evidence, what would the verdict have been?

THE LATE DR. MACPHERSON.—This distinguished Physician-Extraordinary to the Queen, and Inspector-General, who was to have been also President of the Madras Sanitary Association, is no more. The daily papers have published a telegram from India announcing his demise, but of course further particulars are not yet known. He has passed through a long career with great credit, and his decease will be almost universally regretted.

A PRIZE.—We learn from an advertisement, news which seems strange. No less than £2000 is offered as a prize, by a gentleman "who has lately recovered from a serious illness," for the discovery of a new method of anæsthesia, which shall be "effectual, harmless, cheap, and easy to apply." The discovery is to be made before July next year, and essays are to be sent to A. Z., care of the Secretary of the London Hospital. Some of the staff of that large charity will be the adjudicators, and with them will be associated, if possible, some of the staff of other London hospitals. Should no such discovery be made, the judges are authorized to award £1000 "for discoveries of minor importance, but yet of great service in the relief of pain." We hope that shortly the names of the adjudicators will be published, together with other details. The offer has all the appearance of being genuine, and we may hope the benevolent intentions of the proposer may be to some extent carried out.

POLICE MAGISTRATES AS EXPERTS.—Among the anomalies of our law is that which requires a police magistrate to certify a lunatic prior to his removal from a workhouse to a county asylum. Dr. Rogers, of the Strand Union, has lately been made to feel this anomaly by one of our London magistrates refusing the necessary certificate, and so compelling the Doctor to take him back to the workhouse. The guardians of the Strand Union—long notorious for their insolence to their professional adviser would, at this point, probably have been more ill-mannered than ever, had not the Commissioners in Lunacy interfered, and peremptorily ordered the patient's removal. The night before this was affected, however, the lunatic escaped through a window, at great risk of his life, and was not found for several days. Now, if the poor madman had killed himself by jumping from the window, or died of starvation during his roaming about, probably a general howl would have been set up; those amiable guardians of the "Brimstone Hotel" would have denounced their medical officer, and again expressed regret that they could not get rid of him, while the enlightened magistrate would possibly again have set himself up as an expert, and held his own opinion to be more trustworthy than that of a Doctor of Medicine.

CLERICAL M.P. FOR THE UNIVERSITY OF DUBLIN.—It is said that an influential party among the constituents of this University, who are sick of providing good retiring pensions for gentlemen of the long robe, and obeying the orders of the Government, intend to put forward a cleric at the approaching election, to fill the vacancy shortly to be caused by the elevation of Mr. Chatterton to the Irish Vice-Chancellorship. They feel that it is unjust to exclude a clergyman from the House of Commons, and will try the case by electing some resolute and determined clergyman as their representative. Report assigns to the Rev. Professor Haughton, M.D., the distinguished position of fighting this question, and he is said to be the coming man; because although he is in Holy Orders, he has no cure of souls, nor is he identified with any extreme Church party; while, on the other hand, his belonging *bonâ fide* to the Medical Profession, would necessarily secure for him large lay support. Great things would be expected from his known debating powers and decision of character, as well as from his close connection with academic education in all its details.

Parliamentary Intelligence.

HOUSE OF COMMONS.

FRIDAY, 5TH JULY.

MR. SYNAN rose to call the attention of the House to the report of August 10, 1866, of the Committee appointed to inquire into the rank, pay, and position of the Medical Officers of the army. He referred to the evidence given before the Select Committee of 1866 by Professor Longmore, Dr. Rees, and Dr. George Johnson, to show that the chance of promotion for Medical Officers in the army was so small that only inferior candidates could be expected to enter the service. At present there was a manifest deficiency in the attainments of candidates. In 1865 the candidates were almost all of the third class. During the present year the highest number of marks obtained was 1079, the maximum being 3400; and the lowest number was 146, the minimum being 1034. The Committee had made five recommendations, but only one of them, the last, had been attempted to be carried out. That related to the grant of increased pay and earlier retirement. The warrant carrying this out was dated April 1 last, and made no reference whatever to the other recommendations of the Committee or the warrant of 1858. The Medical Officers, therefore, did not know whether the warrant of 1858 was in existence, or whether it was intended to carry out the other recommendations of the Committee. The Medical Officers were satisfied with the rate of service-pay fixed, but not with the retiring-pay allowed by the warrant of April 1. After a certain period of service a Surgeon-Major was entitled to retire upon a rate of pay which should not exceed one-half of his full pay. Thus, a Surgeon-Major of twenty years' standing would be entitled to a retiring pension of 12s. a-day, while an Assistant-Surgeon who might have served thirty or forty years, would only be entitled to a retiring pension of 8s. 9d. a-day. With reference to the promotion of the Medical Officers in the army, the warrant of last April directed that they should only be promoted in order of seniority, and then not until after five years' service, the result of which order would be, according to the returns for 1861-2-3-4-5, which had been furnished to that House, that it would take forty years to make an Assistant-Surgeon a Surgeon. The returns on the same subject, which applied to her Majesty's troops in India as well as at home, embracing the last ten years, showed that it would take an Assistant-Surgeon thirty-one years to become a full Surgeon, and even then he would only be entitled to a retiring pension of 8s. 9d. a-day. The remedy proposed for this grievance

was that a time should be fixed when the Assistant-Surgeon should become a full Surgeon. The Assistant-Surgeons were also anxious that their rank should be recognised, and that they should be denominated "Junior Surgeons" instead of "Assistant-Surgeons." Another ground of complaint was that the Medical Officers in the Cavalry, who had to keep a horse, had to pay 8½d. a-day for horse forage, whereas in the infantry they were allowed 1s. 10d. a-day for the keep of their horse. The hon. gentleman pointed out that the importance to the army of good regimental surgeons could not be overrated, and quoted a remark made by Sir James Outram shortly before his death to the effect that the services of Medical Officers in the army were ill requited, and that the next great war would settle the controversy terribly in their favour. In conclusion, he moved the resolution of which he had given notice—

"That, in the opinion of this House, the alteration made in the Royal Warrant of the 1st day of October, 1858, has not only operated prejudicially to the interests of the Medical Profession, but produced an injurious effect upon the military service of the country, and that it would tend to procure a better qualified class of Medical Officers, and thereby promote the greater efficiency of the military service generally, if the recommendations of the said Committee were carried out in their integrity."

Sir J. PAKINGTON said that if the hon. Member were of opinion that the Medical Officers of the army had not been treated in a satisfactory manner, he was quite right in bringing the subject under the notice of the House. He entirely agreed with the hon. member that the army ought to have competent and well-qualified Surgeons, and it was no less essential that they should be treated in a most kind and liberal spirit. No class of persons, indeed, were more entitled to consideration than the Medical Officers of the army and navy. The question then really was, whether those officers had any fair ground of complaint. The member for Limerick seemed to think they had, and in support of this view had adverted to the warrant issued in 1858. That warrant was issued at a time when his right hon. and gallant friend the member for Huntingdonshire was Secretary for War, and he thought it would be admitted that it was conceived in a spirit of the greatest consideration and generosity towards the Medical Officers of the army. But the hon. gentleman complained that that warrant had been subsequently allowed to fall into neglect. Now, he believed the warrant was not carried out to its full extent, and the result was that evils and inconveniences arose so that a further inquiry became necessary. Accordingly in 1866 a committee was appointed, presided over by Sir A. Milne, and the hon. gentleman now complained that the recommendations of that Committee had not been carried into effect. He must say, however, that in his opinion the hon. member had somewhat overstated this part of his case. The hon. member had referred to a point on which the Medical Officers were very sensitive, viz.—their relative rank in regard to the other officers of the army, and particularly to the position which the Medical Officers occupied when called upon to assist in any boards of inquiry. The fact, however, was that the Committee recommended that when Medical Officers were engaged on such boards they should be entitled to occupy the position which their relative rank entitled them to, but at the same time it was recommended that mixed boards should not be continued. Now, whatever might be the merits or demerits of these mixed boards, he, being an unprofessional man, was unable to say; but it was at all events clear that that recommendation absolutely confirmed the rule that if Medical Officers did sit on mixed boards, they should have the benefit of their full rank. Then, as to the position of Medical Officers at the mess, the recommendation was that if they did not enjoy their full relative rank they should be allowed to hold the second place. In his judgment that met the difficulty of the case. Again, there were recommendations respecting the position which Medical Officers were to occupy in the army, and the greater part of these recommendations were acquiesced in. It was true that a recommendation that they should be restored to the classification which they formerly held had been disapproved at the Horse Guards and at the War-Office; but this was, he believed, a point of minor importance. The hon. gentleman had thought that the Medical Officers should be allowed to have chargers and to appear mounted on parade, but the fact was that the recommendation was to the effect that it should be compulsory on them to do so. It appeared, however, that this was regarded by the Medical Officers, not as a boon, but quite the reverse, and, therefore, the recommendation had not been enforced. He was surprised that the hon. gentleman should have touched so lightly on the rate of pay which the Medical Officers received, and in this respect he challenged the hon. member to say that they were not most generously and liberally treated. With few exceptions he believed that the recommendations of the Committee had been literally and in spirit carried out, and that the army Surgeons, so far as these recommendations were concerned, had no ground to complain. That there was a deficiency of candidates both for the army and the navy was unfortunately the fact; and he should be glad to make any arrangements which he consistently could make in order to render the military service more attractive.

Sir. R. ANSTRUTHER said the whole cause of the dissatisfaction existing among the Medical Officers of the army had arisen from the alteration in the warrant of October 1, 1858. Had that warrant been carried out, Parliament would not have heard a word of these complaints, and the present dearth of first-class Medical men in the army would not have been as lamentable as it now is.

The resolution was then withdrawn.

In answer to a question by Mr. PIM, in reference to the fever in the Mauritius, MI. ADDERLEY was understood to say that up to May 2 there had been 17,000 deaths, of which 10,000 had occurred at Port Louis alone, and at the date of the latest intelligence there was no abatement of the epidemic.

On Tuesday, in the House of Commons, a petition was presented by Mr. FITZPATRICK from the Irish Medical Association, praying that provision may be made in the Irish Reform Bill for a representation of the Medical Profession in Ireland.

Lord NAAS obtained leave to bring in a Bill for transferring the power of appointing the inferior officers and servants of the Irish lunatic asylums (which has hitherto been in the hands of the Government) to the local authorities, and for repealing an Act by which dangerous lunatics were confined in the different prisons of that country.

Legal Intelligence.

IMPORTANT MEDICAL TRIAL.

CENTRAL CRIMINAL COURT, JULY 12.

(Before the Recorder).

RICHARD THOMAS FREEMAN, Surgeon, surrendered under remand to take his trial upon a charge of having criminally assaulted a young woman named Mary Anne Warren.

Mr. Besley conducted the prosecution; Mr. Sleigh and Mr. Straight the defence.

The learned Counsel for the prosecution, in opening the case to the jury, described it as one of very great importance, not only to the prisoner at the bar, but also to the public, because, if the instructions furnished to him were correct, the prisoner had abused his position as a medical man, and had exercised his scientific knowledge to commit a most atrocious offence. He then proceeded to narrate the circumstances connected with the alleged misconduct of the prisoner, and said that, if the prosecutrix's evidence was to be relied on, the prisoner had deliberately administered chloroform to the prosecutrix, who had consulted him professionally, in order that he might have the oppor-

tunity of committing the act imputed to him while she was in a state of insensibility, and unable to offer any resistance.

The prosecutrix stated that she was in the service of a lady named Wheatley. She had been suffering severely from toothache, and at her mistress's request she went, about nine o'clock in the evening of the 22nd June, to the defendant's surgery, and he examined her teeth. Having done so, he requested her to come to the surgery on the following morning at eight o'clock, as he said he could see better to perform the operation at that time. She accordingly went to the prisoner's house on the following morning, and he took her into the surgery, and asked her to sit down in a low chair close to the window, and she did so. He then, without saying a word, put something to her nose and mouth, which rendered her immediately insensible. Shortly afterwards she partly recovered her consciousness, and she then found that her mouth was bleeding, and that her teeth had been removed. She then described the position she found her clothes in—mentioning several things unfit for publication in our columns. She again lost all consciousness, and on a second time recovering herself, found her mistress in the room, with whom she returned to her situation. The prosecutrix went on to say that she felt very ill and stupefied during the whole of the day on the 23rd, and on the following day she went home to her mother, and, in consequence of what she subsequently stated, a married sister accompanied her on the Thursday following to Guy's Hospital, where she underwent an examination.

In cross-examination, the prosecutrix said that the prisoner was the medical attendant of her mistress, and it was at her request that she went to him to have her teeth examined. The moment he looked at her teeth he told her that she had better have them taken out, and upon her saying that she was afraid of the pain, the prisoner told her he would take them out without giving her any pain. She was with her mistress the whole day after the occurrence, but she did not say a word to her about what had happened, or what the prisoner had done to her. When she went to her mother's on the Monday evening she met a girl named Tibbs, who asked her what made her look so ill, and she said that Dr. Freeman had drawn some of her teeth, but she did not make any complaint of Dr. Freeman having acted indecently towards her, or say that a servant was present all the time, and that the prisoner was very kind to her. She also denied having said to this person that she could not have borne the pain if chloroform had not been administered to her.

The mistress of the prosecutrix, her married sister, and Mr. Bryant (of Guy's Hospital), were then examined, the medical testimony apparently confirming her evidence most materially as to the period when the alleged offence was committed.

Mr. Sleigh made a powerful address to the jury in behalf of the prisoner, who, he said, indignantly denied the foul accusation that was made against him. Having observed upon the fearful consequences that must necessarily result to a medical man from having a charge of this description made against him, he said that the result must necessarily be that no respectable man would trust himself alone with a female patient, unless in the presence of some female relative of such patient. He then remarked upon the improbability that such an offence should be committed while the girl was literally in a state of death, and he asked the jury if they could account satisfactorily for the conduct of the prosecutrix in not having said a single word to her mistress of such a filthy act of indecency, although she was with her the whole day after it was represented to have happened, consistently with the fact of the story being true.

Mary Cook, the servant to the prisoner, was then examined. She remembered the prosecutrix coming to the house on the morning in question to have her teeth drawn. She fetched a glass of water as directed by her master, who said he should want her to assist him. He then administered chloroform to the prosecutrix, and witness held her head while he drew the prosecutrix's teeth. The witness declared in the most positive manner that she never left the room until the prosecutrix's mistress came, and that the prisoner did nothing of the kind imputed to him, and the prosecutrix made no complaint whatever.

This witness was cross-examined by the learned counsel for the prosecution, but nothing was elicited that appeared in any way to affect her testimony.

Emily Tibbs stated that she met the prosecutrix on the Monday evening as she was going to her mother's house, and she told her that Dr. Freeman had drawn two of her teeth on the previous day, and that she felt a great deal better. Witness told her that she ought to have had some one with her, and she replied that it was not necessary, as Dr. Freeman's servant was in the room all the time, and he sent for some warm water and they were very kind to her. She was talking to the prosecutrix for a quarter of an hour on this occasion, and in the course of the conversation the prosecutrix told her that she went to Brighton on Whit-Monday with her young man, and they enjoyed themselves very much. The prosecutrix had often spoken to her about her "young man," and frequently told her that he was a very fine fellow.

Mr. Sleigh, in summing up the case for the prisoner, said that if he had felt sanguine as to the result of the inquiry when he last addressed them, he was still more sanguine at that moment, after the evidence of the witnesses whom he had called for the defence. The witness, Mary Cook, was apparently a most respectable young woman, and unless she had committed the most gross and deliberate perjury, it was clear that the prisoner must be entirely innocent of the crime of which he was accused.

The Recorder, in summing up the evidence to the jury, said that if they believed the witness Mary Cook, there was, of course, an end of the case. This witness also appeared to be corroborated by the woman Tibbs, and he at the same time observed that it did certainly appear very extraordinary that the prosecutrix should not have communicated to her mistress, who appeared to have acted with so much kindness to her, what had taken place immediately, and that she should not have said anything about what she represented to have occurred until the following day.

The Jury retired at twenty minutes past three o'clock to deliberate upon their verdict.

After being in their room for more than an hour, a message was sent to the Recorder to the effect that there was no chance of their agreeing.

The Recorder, upon this, said that he was compelled to leave, but he would come down again at seven o'clock to receive the verdict.

At that hour, accordingly, the Court again assembled, and the jury were brought from their room, and the foreman stated that they had had great difficulty in arriving at a decision upon the case. The evidence was very conflicting and contradictory, and they therefore at length had decided upon giving the prisoner the benefit of the doubt, and therefore their verdict would be one of Not Guilty.

This verdict was received with considerable applause.

Since the trial, the premises of Mr. Freeman have been literally besieged by the curious, in order to obtain a glimpse of the accused, but now acquitted, Surgeon.

Examination Papers.

UNIVERSITY OF DUBLIN, TRINITY COLLEGE.

MEDICAL SCHOLARSHIP EXAMINATION.

TRINITY 1867.

ANATOMY (DESCRIPTIVE AND PHYSIOLOGICAL).

Professor M'Dowel.

1. The functions performed by the oblique muscles of the eyeball?

2. Describe the lachrymal caruncle, and mention any analogous structures.

3. What in man is the representative of the nictitating membrane of birds and reptiles?

4. The nervous supply and the mode of action of the cricothyroid muscle?

5. What are the attachments of the epiglottis?

6. Mention the origins and distribution of the following nerves:—Nervus tympanicus, greater superficial petrosal, lesser superficial petrosal, and lesser palatine nerves.

7. The relations of the trunk of the internal epigastric artery?

8. Describe the portal venous system of the kidney.

9. What nerves are found in the iliac fossa? Distinguish those superficial to, and those deeper than, the fascia iliaca.

10. Describe and contrast the intestinal glands of Brunn and Peyer.

Chemistry.—Dr. Apjohn.

1. In the British Pharmacopœia perchloride of iron is prepared by first making chloride of iron, and then converting this into perchloride; why is the latter salt not made by the more direct and speedy process of acting on metallic iron with aqua regia?

2. A solution containing chloride of iron, nitre, and hydrochloric acid, when heated evolves nitric oxide; how is such a result explained?

3. How would you convert arsenious into arsenic acid, and reduce arsenic to arsenious acid? State also how you would convert arsenious acid into arseniuretted hydrogen; and specify the reactions which ensue when this latter compound is made to pass into a solution of nitrate of silver.

4. Two liquid drachms of hydrocyanic acid, of specific gravity 0·984, when supersaturated with potass, did not give a permanent precipitate with the volumetric solution of nitrate of silver until 161·5 measures of this solution had been added; from these *data* deduce its percentage of absolute acid.

5. What is the method proposed by Schneider for separating arsenic from organic matter? When thus insulated, what is the form in which it is obtained, and what are the test experiments which you would perform upon it?

6. What amount of amylic alcohol would it be necessary to oxidate in order that, when converted into valerianate of zinc, this salt should weigh 100 grains? Specify also the theoretic quantities of oil of vitriol and bi-chromate of potash which it would be necessary to use, and the weight of the chrome alum produced in the process.

7. What amount of crystallized green vitriol would, when precipitated by ferridcyanide of potassium, yield 120 grains of Turnbull's blue?

8. How would you analyze, according to the method of Andral and Gavarret, the crassamentum of blood so as to determine the respective weights of the fibrin, the albumen, and the globules contained in it?

9. In the case of a mixed calculus, consisting of uric acid, mulberry calculus, and fusible calculus, how would you determine the amount of each?

10. Write the formula of glycerine, viewed as a triatomic alcohol, and explain how it may be insulated in the process for the preparation of litharge ointment; give, at the same time, the composition of the stearic, margaric, palmitic, and oleic acids which are produced in the saponification of fatty matters.

Botany—Dr. Dickson.

1. What is meant by a five-thirteenth leaf-arrangement? and how many vertical ranks do the leaves form here upon the stem?

2. Define the terms "perfoliate" and "connate" as applied to leaves.

3. How do the prickles on the Bramble differ from the spines on the Hawthorn?

4. How might you recognise a *leaf-like shoot*, independently of any development of leaves or buds upon it?

5. State the relative position of the micropyle to the chalaza and hilum in an *anatropal* ovule.

6. State what is meant by "ruminated" albumen, and give an example.

7. Give a plant with—

Calyx of 5 persistent sepals, produced at their bases;
Corolla dialypetalous, irregular; odd petal inferior, spurred;
Stamens 5, hypogynous, more or less synantherous; the two lower with spur-like appendages;
Fruit capsular, 1-celled, opening by 3 valves, each bearing a parietal placenta on its middle; seeds albuminous;

Name the natural order.

8. Name a natural order where the corolla is gamopetalous, and the stamens are not adherent to the tube of the corolla.

9. State as briefly as possible the differences between the orders *Boraginaceæ* and *Labiatæ* as to stem, leaves, inflorescence, carolla, and stamens.

10. State the natural order of the plant before you, and the form of inflorescence here exhibited.

Materia Medica.—Dr. Aquilla Smith.

1. How is commercial Iodine purified, and what is the chief impurity removed by the process?

2. Tartaric and citric acids, both in powder, how are they to be distinguished?

3. What drugs are produced only in Africa? Describe one of them, and state its therapeutic action and dose.

4. Give the different methods of administering Balsam of Copaiba, and write a prescription for an eight-ounce mixture of which Copaiba is the active constituent.

5. Why is fine iron wire directed to be used in making "Liquor Ferri Pernitratis"?

6. In making the preparations of Sarsaparilla, why is the Sarsaparilla directed to be "not split"?

7. What drugs and preparations are most affected by exposure to light and air, and by contact with organic matter?

8. Commercial Sulphate of Quinia may contain Salicin, Cinchonia, and Quinidia; how is the presence of these substances to be detected?

9. In making "Aqua Lauro-cerasi," give the reason for crushing the leaves, filtering the distillate, and preserving the water in a stoppered bottle.

10. Contrast the characters of Bromide of Potassium and Iodide of Potassium, and give the respective tests for the constituents of each salt.

ABSTRACT OF THE ANNUAL RERORT OF THE COMMISSIONERS FOR ADMINISTERING THE LAWS FOR RELIEF OF THE POOR IN IRELAND.

May it please your Excellency,—We, the Commissioners for administering the Laws for relief of the Poor in Ireland, submit to your Excellency this the Twentieth Annual Report of our proceedings, under the Acts in force for the Relief of the destitute Poor in Ireland.

8. Looking at the twelfth column of the same table in sucessive Reports it will be seen that, in January of the year 1864, the average weekly cost of maintenance in the workhouses in Ireland, exclusive of clothing, was 2s.; in the same column in 1865 it was 2s. 0¾d.; in 1866 it was 2s. 2d.; and in 1867 it was 2s. 5¼d. The continuous rise in the cost of provisions indicated by these comparisons, together with some improvements in the dietaries, has occasioned a material part of the increase of the relief expenditure, which will be noticed in a subsequent paragraph.

The total number of deaths in the workhouses is 12,582, in comparison with 11,622 in the corresponding fifty-two weeks of last year, or an increase of 960. But this difference is little more than the difference between the eight weeks ended 10th February, 1866, and the eight weeks ended 9th February, 1867, that is to say 900 deaths—an increase no doubt attributable

to the excessive severity of the winter season of 1867. It will afterwards appear that the deaths to 29th September, 1866, were fewer than in the previous year.

The deaths by fever in the workhouse fever hospitals have been only 981, as compared with 1258 last year ; and those by scarlatina only 70, in comparison with 134 in last year.

10. We have thus more evidence of that great diminution of mortality by small-pox which was dwelt on in the last Report, as a consequence of the very successful operation of the Compulsory Vaccination Act of 1863. In the fifty-two weeks of the period it will be seen that only 9 deaths took place from small-pox in the workhouse hospitals of Ireland, in comparison with 59 in the corresponding period of last year. In a like period in 1865 the number of deaths by small-pox in workhouse hospitals was 145 ; so that, from the time of the first operation of that Act the decline of small-pox, as treated in the workhouse fever hospitals, has been both remarkable and continuous.

The only part of Ireland for which the Registrar-General's returns furnish a means of comparison is the Dublin registration district (population 314,409), and in this district it appears that the deaths by small-pox in fifty-two weeks, ending 23rd March, 1865, were 48; while in the corresponding fifty-two weeks ending 23rd March, 1867, they were 23. In the course of the last seventeen weeks only two cases of death by small-pox have been registered, and the city of Dublin and suburbs may be said to have been for a whole year free from small-pox, except in two localities—viz., the Blackhall-street district, on the north side, and the Meath-street district on the south side of the river.

13. Another source of additional expenditure from the poor-rates has been created by the passing of the "Sanitary Act, 1866," imposing on the Guardians in all places not under the control of a municipal body, the duty of attending to the improvement of the sewerage and the removal of nuisances, in addition to that of providing special remedial measures and preventing the spread of contagion during the prevalence of epidemic disease. We have caused copies of this Act, and of all Acts or parts of Acts incorporated with it, to be printed in one volume, with a copious index for the use of the Boards of Guardians of Unions, and Committees of Management of Dispensary Districts, and have issued from time to time circulars of instruction relating to the new duties imposed upon those bodies respectively. These circulars, together with the orders under seal, issued under the provisions of the Sanitary Act, will be found in the Appendix.

14. It was not difficult to awaken the Boards of Guardians to a sense of the important character of their new functions under the Sanitary Act ; and upon the whole, a very commendable degree of activity has been shown, and many operations conducive to the health of the community have been undertaken and carried out. Similar activity, we believe, has been shown in the large cities and towns which are under the government of Town Councils ; but in the smaller class of towns, which are under the control of Town Commissioners, and over which, therefore, the Boards of Guardians possess no power, either as sewer or nuisance authority, we apprehend there has been, and still exists, in many cases, neglect.

15. The heading "Poor-law Expenditure" shows an increase of £11,342, notwithstanding that for the 12 months ending at the same date, viz., 29th September, the number of indoor recipients of relief was less by 20,062 than in 1864-65 ; while the number of outdoor recipients was more by only 1227, the total showing a decrease of 18,823 persons. The chief cause of the increased cost of relief is the enhanced price of provisions mentioned above in paragraph 8, the weekly rate of maintenance (exclusive of clothing) having advanced in one year from 2s. 2d. to 2s. 5½d.

From this it appears that the total expenditure from the poor-rates in 1865-66 exceeded the total expenditure in 1864-65 by £22,815, or, excluding the Cattle Plague Fund, by £9668. This excess is accounted for by the increased cost of in-maintenance—viz., £6183, and an increase of out-door relief to the extent of £4413. The items of decrease under Medical Charities Acts, Registration Acts, and Burial Grounds Act, are nearly balanced by an item of increase in the salaries and rations of Union Officers.

18. We have observed with much satisfaction that a sum of £59,300 is included in the Civil Service estimates for the year 1867-68 for the purpose of defraying, as in England and Scotland, part of the expense of medical salaries and medical and surgical appliances in the Irish workhouses and dispensaries. Every Irish Union has some claim to share in the benefit of this grant ; but we anticipate from it a very material improvement in the medical arrangements of the Unions on the western coasts of Ireland, to which object we trust a large proportion of the grant will be applied. We allude to districts of country of great area containing a scattered and poor population, with a (comparatively speaking) very low rental ; where, accordingly, there is little or no private practice, and where salaries sufficient to induce a sufficient number of competent practitioners to settle themselves, fall with great weight upon rateable property, already taxed for other local public purposes by poundage rates greatly exceeding those of more favoured parts of the country.

We have already, in our Ninth Annual Report, declared the medical arrangements made in some of these districts, especially the promontories and islands, to be quite inadequate, and incapable of remedy without such external assistance as the fund alluded to will, we trust, be permitted to supply.

PROCEEDINGS UNDER THE MEDICAL CHARITIES ACT, IRELAND.

19. We now submit to your Excellency the report of our proceedings under the above mentioned Acts for the past year.

The subjoined table exhibits, for each of the last five* years, ending respectively on September 30th, a summary of the relief afforded under the Medical Charities Act, in each province, and in the whole of Ireland, distinguishing the cases attended at the dispensaries from the more serious cases attended by the Medical Officers at the patients' homes.

SUMMARY OF THE NUMBER OF CASES OF MEDICAL RELIEF AFFORDED UNDER THE MEDICAL CHARITIES ACT.

Period.	Province of Ulster.		Province of Munster.		Province of Leinster.		Prov. of Connaught.		Total for Ireland.	
	Dispensary Tickets.	Visiting Tickets.	Dispensary Tickets.	Visiting Tickets.	Dispensary Tickets.	Visiting Tickets.	Dispensary Tickets.	Visiting Tickets.	Dispensary Tickets.	Visiting Tickets.
Year ended 30th Sept. 1862, .	141,679	50,611	220,009	53,248	217,078	58,363	81,690	17,501	660,456	179,723
Year ended 30th Sept. 1863, .	150,110	55,201	236,334	56,848	225,725	63,159	85,518	17,721	697,687	192,929
Year ended 30th Sept. 1864, .	148,981	58,863	230,957	60,033	223,959	61,690	87,141	17,211	691,038	197,797
Year ended 30th Sept. 1865, .	137,886	58,509	212,838	60,773	201,730	63,136	82,882	19,915	635,336	202,333
Year ended 30th Sept. 1866, .	123,510	55,252	184,780	55,651	187,585	62,321	73,687	18,011	569,562	191,235

It appears, comparing the two last years in the table, that there has been in Ulster, for the last year, a decrease in the numbers of dispensary cases amounting to 14,376, and in cases attended at the patient's homes a decrease of 3257 cases ; in Munster, a decrease of the former class of cases of 28,058 cases, and of the latter a decrease of 5122 cases ; in Leinster, a decrease of 14,145 in dispensary cases, and of 815 in domiciliary cases ; and in Connaught, a decrease of 9195 cases in the former, and of 1904 in the latter class of cases. Thus, for the whole of Ireland, there has been, for the last compared with the preceding year, a diminution in the number of cases relieved at the dispensaries of 65,774 cases, and of cases visited at the patient's homes a diminution of 11,098 cases ; giving a total of 76,872 cases. This is the largest diminution in the number of cases relieved that has taken place between two successive years since the enactment of the Medical Charities Act. It may be presumed that an improvement in the condition of the health of the poor, and the decrease in the population of Ireland, have each contributed to this result.

20. The expenditure on dispensary medical relief for each of the last five years ended September 29th, is exhibited in the next table, for each province, and for all Ireland.

* [The report gives the statistics of ten years, but we have thought it sufficient to confine attention to the five preceding the present.—Ed. M. P. & C.]

MEDICAL CHARITIES EXPENDITURE, YEARS ENDED 29TH SEPTEMBER.

Year.	Ulster.	Munster.	Leinster.	Connaught.	Total.
1862, .	£28,929	£31,991	£31,748	£14,190	£106,858
1863, .	29,676	32,269	32,663	14,598	139,206
1864, .	31,264	34,387	34,136	15,118	114,905
1865, .	31,492	34,923	34,782	15,841	117,038
1866, .	31,149	34,464	34,459	16,243	116,315

This table shows a decrease of expenditure compared with the year before, amounting to £723. In Connaught only has there been an increase, amounting to £402.

Expenses under the Medical Charities Act, year ended 29th September :—

	1865.	1866.
1. Medicines and medical appliances, . .	£21,804	£21,429
2. Rent of Dispensary buildings, . . .	7,195	7,114
3. Books, forms, stationary, printing, and advertising, ...	1,246	1,368
4. Salaries of { Medical Officers, . . .	70,343	70,605
{ Apothecaries, . . .	2,209	2,132
5. Fuel, porters, and incidental expenses, .	5,568	6,373
Expenses under Vaccination Act :—		
6. Vaccination fees and other expenses :—		
Fees to Medical Officers, . . £7,945	8,673	6,688 7,294
Other expenses, . . . 728		606
	£117,038	£116,315

Under the third and fifth heads in this table, viz., books, forms, &c., and fuel, porters, and incidental expenses, the expenditure was greater for the year ended September 29th, 1866, than for the year before by £122 and £805, respectively. Under the fourth head there has been an increase for the last year in salaries of Medical Officers of £262, and a decrease in salaries of Apothecaries of £77. Under the remaining heads last year's expenditure has been less than that of the previous year by £375 in medicines and medical appliances, by £81 in rent of dispensary buildings, by £1257 in vaccination fees to Medical Officers, and by £122 in other vaccination expenses.

The average poundage on the Poor-law Valuation of Ireland (now £12,989,026) to provide for the above-mentioned total expenditure was 2·15d. nearly, which is slightly below that of the year before, viz., 2·17d.

23. New appointments of midwives were authorised during the year in fourteen additional dispensary districts. It is the duty of the midwife, should anything out of the natural course occur in a case under her care, immediately to call for the assistance of the Medical Officer of the district, who thenceforth takes charge of the case.

24. The subjoined table exhibits the progress of vaccination of the poor in Ireland by the Dispensary Medical Officers for the five years ended September 30th, 1866 :—

	Number of Cases of Vaccination.
Year ending September 30, 1862, . . .	89,863
,, ,, 1863, . . .	106,510
,, ,, 1864, . . .	191,810
,, ,, 1865, . . .	169,142
,, ,, 1866, . . .	137,124

Although there has been a decrease in the total number of vaccinations shown in this table during the years ended September 30, 1865, and 1866, this is not to be regarded as unsatisfactory. Notwithstanding the decrease of the total number of vaccinations in these years, the vaccinations of infants falling under the operation of the compulsory Vaccination Act have been and are still increasing.

25. It appears that the total vaccinations for the last year in this table compared with the year before, are fewer by 32,018 cases ; but that the whole of this diminution has fallen upon vaccination of persons born before 1864—which class must every year diminish—while there has been an increase of vaccinations of infants coming under the operation of the Compulsory Vaccination Act for the same year of 7570 cases. The operation of this act is still, therefore, attended with success, though with less perhaps than it ought to be. We observe with much concern that in Leinster there has been a falling off in the number of infant vaccinations for the last year amounting to 785 cases. We can conceive no other cause for this than remissness on the part of some of the Boards of Guardians, in exerting the powers conferred on them by the Legislature to enforce on parents and others having the charge of infants the duty of affording them the protection of vaccination against the terrible consequences, amongst the unprotected, of an epidemic visitation of small-pox. Such an epidemic may at any time occur, and where Guardians fail to use the powers they possess to enforce vaccination they render themselves responsible for the great loss of life and other evils almost certain to take place among persons unprotected against small-pox, if exposed to its contagion. The Dispensary Medical Officers, who are nearly all Registrars of Births, &c., and as such register the birth, and also the vaccination, of every child born in their districts, are required from time to time to furnish to the Guardians lists of children whose births, but not vaccinations, are recorded in their registers, and it can be easily ascertained in any case whether the parents of those children can plead any reasonable excuse for their default ; otherwise the defaulter should be summoned before the magistrates ; and we do not doubt that the steady infliction of a fine of a few shillings in all such cases would, in a few years, secure a nearly complete vaccination of all infants within six months of birth.

The births of children registered in Ireland for the year ended March 31, 1866, were 146,990. All the children born during that year should, under the provisions of the Compulsory Vaccination Act, have been vaccinated before the 1st of October, 1866 ; and of these, probably about 130,000 were proper subjects for gratuitous vaccination at the dispensaries and vaccination stations. But the table shows that the dispensary vaccinations of infants for that year were only 104,730, and therefore (making allowance for deaths under six months) no less than 25,270 cases fewer than were required for the complete vaccination of the children of the poor born in the year in question. The corresponding deficiency for the year before was estimated at 33,840, giving a difference in favour of the last year of 8570 cases. Thus it appears that the operation of the Compulsory Vaccination Act continues, except in Leinster, progressively successful.

26. The usual record of the number of cases of scarlatina, small-pox and fever, is given. In each of these diseases there has been a smaller number of cases for this year than for the year before, viz., 6576 cases of scarlatina, 579 of small-pox, and 22,287 of fever, during the last year, against 6632 cases of scarlatina, 2000 of small-pox, and 26,566 of fever, during the year before. As regards scarlatina, the difference between the two years is inconsiderable. The cases of fever are fewer for the last than the preceding year by 4279 cases. The numbers of cases of small-pox for the two years exhibit a still greater proportional decline of that disease, and may, we think, be received in proof of a real diminution of small-pox ; although, because of the frequent concealment of it by the peasantry, when produced by itinerant inoculators, we cannot consider the numbers returned as correctly representing the numbers of cases that actually occurred among the poor in the two years.

28. Having learned that a well-marked case of Asiatic Cholera had occurred in Dublin on the 27th of July, 1866, a circular was addressed to the Dispensary Medical Officers throughout Ireland, on the 2nd of August, requesting that, in the event of any case of Asiatic Cholera occurring in a dispensary district, the Medical Officer would at once transmit to us the particulars of the case in a special report, to enable us to communicate on the subject with the Guardians. We also immediately apprized the Government of the fact that cholera had appeared in Dublin, and recommended the issue of an Order in Council putting in force over all Ireland the provisions of the Nuisances' Removal and Diseases' Prevention Act, 1848, which relate to the prevention and treatment of epidemic disease, and bestow upon us powers under that Act, so long as the Order in Council is in force, to frame and issue regulations for the same end. An Order in Council was accordingly issued on the 3rd of August by their Excellencies the Lords Justices, and such regulations as were thought primarily necessary to meet the epidemic were issued on the 6th of August. On the 7th of August, however, the Sanitary Act, 1866, having received the Royal assent, by which Act the Nuisances' Removal and Diseases' Prevention Acts of 1848 and 1849 were repealed, it became necessary to take the above-mentioned proceedings anew under the Sanitary Act, 1866. On the 17th of August the new Order of their Excellencies the Lords Justices in Council was issued under the Diseases' Prevention Act, 1855, now extended to Ireland by the Sanitary Act, 1866 ; and, under authority of these Acts and the Order in Council, new regulations were framed, prescribing at the same time the preliminary measures requisite to be taken before cholera should actually occur in any dispensary district, and also after its outbreak. In the latter event, each of the dispensary districts was constituted a district for the treatment of cholera and premonitory diarrhœa, and the Dispensary Committee of Management was to become a Sanitary Committee under the Diseases' Prevention Act, 1855. The Medical Officers of the dispensary districts were appointed Medical Officers for the

treatment of patients suffering under or threatened by cholera, without the presentation of ticket or recommendation of any kind. The Guardians were required to give public notice, where cholera or diarrhœa prevailed, of the arrangements made for the treatment of patients; and to adopt measures for the disinfection of houses in which cases had existed, and of clothing and bedding used by the patients, or likely to convey contagion; for house to house visitation; for the abatement of all nuisances which might favour the spread of the diseases; and for the speedy interment of those dead of cholera. The Guardians were directed, should cholera occur on board any ship not belonging to Her Majesty or any foreign government, and lying in any river or inland water of the Union, or at sea on the coast of the Union within the jurisdiction of the Admiralty, to deal with it under the new powers conferred by the eleventh section of the Diseases' Prevention Act, 1855, as regards inspection, disinfection, and treatment of the sick, in the same manner as if the ship were a house in their Union; and they were authorized, in respect to all expenses incurred in the disinfection of the dwellings of poor persons labouring under diarrhœa or cholera, and in the removal of nuisances, to defray them, in case of necessity, from the rates. The Sanitary Committees were directed to hold meetings weekly or oftener; and the Medical Officers were required to make weekly returns to their Committees, and daily returns to us, in prescribed forms, giving precise information as to the existing condition of the diseases in their districts.

29. Thus in any dispensary district in which the Guardians had made the preliminary arrangements prescribed by the 1st Regulation of the General Order of the 25th of August, it was in our power to put in motion the whole machinery for the treatment of the subjects of the epidemic in the most remote dispensary district in Ireland within forty-eight hours after the occurrence of the first case of cholera; or even, in consequence of an important improvement on the course followed in the epidemic of 1854, immediate steps for putting the regulations in force might be taken by the Guardians and Sanitary Committees, as soon as the disease appeared in their unions or districts, without waiting for further instructions.

30. The two first cases of Asiatic cholera in the present epidemic in Ireland occurred on the 27th of July. We have mentioned above that the first case in Dublin occurred on July 27, 1866; and on the same day the first case in Wexford occurred. In our endeavour to trace the origin of the outbreak, we have ascertained the very remarkable and significant fact, that in the following cases, viz.—in Dublin South City Dispensary District, July 27; Wexford, July 27; Dublin, North City Dispensary District, August 2; Belfast, August 9; Kilkeel, County Down, August 10; Rostrevor, County Down, August 11; Buncrana, County Donegal, August 12; Kilkelly, County Mayo, August 12; Ballylinan Dispensary District, County Kildare, August 14; Dunlavin Dispensary District, County Wicklow, August 14; Drogheda, August 14; Roscommon Dispensary District, September 6; and Mountmelick, Queen's County, September 6; the patients had in every instance just arrived in the respective localities from Liverpool, where cholera at the time was rife.

In some other cases there was clear evidence of the importation of the disease. Thus, in Arklow, where the disease, having regard to the population, has been on this occasion perhaps more severe than in any other town in Ireland, it was brought (August 30) by two sailors just arrived from on board the schooner *Crystal Palace*, lying in the Liffey, from which a sailor had been removed in cholera on the Tuesday before. In the town of Wicklow the first case occurred in a person just arrived (October 16) from on board the *Olive*, lying at Kingstown, in which the disease existed. In the village of Cloughey, County Down, the disease was imported (October 20) from Balbriggan, where cholera then prevailed, by a sailor, who died of the disease. Another sailor from the same boat died of cholera in the next village, on October 21, and the disease quickly spread in the neighbourhood. The first case of cholera in Newbridge, Naas Union, occurred in the person of a cattle-dealer, who had just arrived from Manchester. He became ill on August 15, and died on the evening of the next day. In the first case, in Killyon Dispensary District, Parsonstown Union, the patient had returned from England two days before. He died after ten hours' illness. In Youghal the disease was imported by a sailor just arrived from Cardiff (August 20); and in Baronstown Dispensary District, Dundalk Union, the subject of the first case of the disease was a labourer, who returned from the North of England, on Friday, August 10. He was taken ill on the next day with diarrhœa. On Sunday evening cholera was fully developed, and after a short rally, he died on the next Wednesday.

In eleven of the twenty localities some particulars of the first cases occurring in which we have just given, the disease immediately spread, with more or less severity. In the remaining instances no second case occurred.

31. A striking instance of the communication of the disease by contagion was afforded by the first case in Dublin. The girl, Jane Magee, by whom the disease was imported from Liverpool, was one of four occupants of a room in the house No. 22, City-quay. This girl died in thirteen hours after the distinct establishment of cholera. Mary Anne Meyler, aged three years, cousin of Jane Magee, the second case, became ill on July the 30th, and died after about seventeen hours' illness. The father of this child, Christopher Meyler, the third case, aged 35, was seized at an early hour on August 1st, having been the day before in perfect health, and died after fifteen hours' illness. The last occupant of the room, widow of Christopher Meyler, became ill in the evening of the 1st of August, was removed to Sir Patrick Dun's Hospital, and died there on the 5th of August. Another remarkable case of the same kind was reported by Dr. Whistler, Medical Officer of the Bray and Rathmichael Dispensary District. Charles Ryan, a comfortable farmer, living in a very healthful situation about a mile from Bray, came into that town on December 10th, 1866, cholera being very prevalent there at the time. He was not a temperate man, and indulged freely in drink on this occasion. On his return home he was attacked the same evening with the usual symptoms of cholera, and died on the eight day of his illness. On the 13th Catherine Molloy, a healthy, active young woman, servant in the family, but not in actual attendance on Ryan, was seized with cholera, and died after thirty-eight hours' illness. On the 15th a sister of Ryan, a robust, healthy woman, sickened and died after sixteen hours' illness; and on the 18th a boy, grand-nephew to Ryan, resident in the house, fell ill, and died on the third day of illness. The family consisted of six persons, four of whom died of the disease within ten days.

32. In many instances, on the other hand, it was found impossible to establish any connexion between the first case occurring in a new locality and any other, or any place in which the disease prevailed. We will adduce two remarkable instances of this. As has been stated above, cholera first appeared in Ireland, in the present epidemic, in Dublin and Wexford, on the 27th of July. On the 22nd of August it broke out, with a virulence for a short time very alarming, in Westport, county Mayo, quite on the other side of Ireland. Within a few days 22 cases with 13 deaths occurred, and in a short time the disease became extinct, and has not hitherto recurred. Diligent enquiry failed to connect any of these cases with any other case of the same disease, or with any infected locality.

The second instance alluded to occurred among the male prisoners in the Mountjoy Convict Prison, Dublin, and was a very remarkable instance of the apparently spontaneous origin of Asiatic cholera.

It is scarcely within our province to enter on the details of this case, the institution being under the superintendence of another department; but we may be permitted to state shortly that under the most favourable conditions of situation, air, water, food, and sewerage, the disease in a virulent form shewed itself on the male side of the establishment, numbering 280 inmates, but not on the female side, where there were 400. On 23rd Dec. and four following days nine cases of cholera occurred, of which four were fatal. Simultaneously with five cases of cholera which broke out on the first day, 64 cases occurred of diarrhœa, all of which yielded to prompt treatment.

It is remarkable that this took place after cholera had ceased in every other part of Dublin and the suburbs, and when no communication could have taken place between persons in the prison and persons in any locality in which cholera was at that time prevailing.

34. From the beginning of September the disease slowly but steadily spread westwards till towards the end of last January, when the returns of cases from the Dispensary Medical Officers had become very few; and then, for some weeks it appeared to be extinct. New cases, however, have recently occurred at Whitegate, a village on Cork harbour; and soon after a few scattered cases were reported by Dispensary Medical Officers at Tullamore, Navan, Kells, Oldcastle, and Belfast. At the present date we are happy in being able to report to your Excellency, that for some time past no case of cholera has been reported to us from any part of Ireland.

35. Up to December 31st, 1866, when the disease was approaching extinction, as we have mentioned, there had been reported by the Dispensary Medical Officers, 3119 cases, with 1256 deaths in Leinster; 541 cases with 229 deaths in Munster; 87 cases with 32 deaths in Ulster; and 59 cases with 38 deaths in Connaught, giving totals for Ireland of 3,806 cases and 1555 deaths. The cases and deaths in hospitals provided by the Guardians for cholera patients; and the cases and deaths in the hospitals supported by Parliamentary Grant, and other hospitals in the City of Dublin, amounted to 1389 cases and 753 deaths. The total cases of cholera in Ireland, excluding 886 of the above-mentioned dispensary cases which were sent to hospital, and are also included in the hospital returns, was 4309, resulting in 2308 deaths, which, compared with 5570 cases, and 2606 deaths in 1854, gives a percentage mortality of 46·8 in 1854, and 53·6 in 1867. The above cases are exclusive of those arising in private practice, and of cases sent to hospital otherwise than at the expense of the Poor Rate.

36. Dealing separately with those portions of the above statistics which relate to the City of Dublin, exclusive of the suburbs, we find that there were in the recent outbreak 1825 cases of cholera, resulting in 755 deaths of persons treated at the expense of the Unions. That is to say, in the City Dispensary Districts, 1183 cases, resulting in 370 deaths, and in the hospitals, 642 cases, resulting in 385 deaths. There were also treated in the two Dispensary Districts of the City of Dublin 6921 cases of diarrhœa, resulting in 61 deaths. The total number of dispensary cases of diarrhœa treated throughout Ireland during this epidemic was 25,100, with 340 deaths, in comparison with 27,423 cases with 279 deaths in 1854.

38. The recent application of this system of medical relief to the English Metropolitan District was partly recommended on the ground of its extreme usefulness on such occasions, as will appear from the following passage in the Report of Mr. Lambert, the English Inspector sent over to Ireland to inquire into the operation of the Irish Dispensary system, with a view of seeing whether it might not be advantageously applied to the London Unions:—

"It provides," he says, "an organisation always ready and capable of expansion, if necessary, to meet any outbreak of epidemic disease with promptness, while at the same time it is calculated to prevent disease becoming epidemic, and procuring the adoption of precautionary measures in any locality which may be threatened. These benefits have recently been largely realized in Ireland in reference to cholera."

The same view was dwelt upon by the President of the English Poor-law Board in moving the first reading of the Metropolitan Poor-law Bill in the House of Commons.

39. It is right to mention that we have resorted to the exercise of the recently-enacted power of enforcing adequate remuneration to the Medical Officers for extra service under the cholera order, in only one instance—viz., that of the North Dublin Union, having in all other cases found ourselves able to approve the amount voted by the Board of Guardians, or where we did not approve, to induce the Guardians finally to adopt our views.

DEPARTMENTAL ARRANGEMENTS.

The passing of "The Sanitary Act, 1866," has entailed upon the four Medical Inspectors an increase of official duty, under the provisions of the Sewage Utilization Acts, the Nuisances' Removal Acts, and the Acts for the Prevention of Disease, so far as the same are applicable to Ireland. Most of these duties are, to say the least, as capable of being efficiently discharged by the lay as by the Medical Inspectors; and it is impossible for these officers to decline to take part in the business arising under these Acts on their attendance at Boards of Guardians when the latter are desirous of obtaining their advice and assistance. The legal powers of inquiry possessed by Poor-law Inspectors are, however, limited to questions arising under the Poor-law Acts; and much waste of service is caused by having one and the same district subject to two Inspectors possessed of different powers and functions, and traversing the same roads in performance of different duties. We therefore feel called upon to repeat a recommendation already made by us in 1857, to the effect that every Inspector, whether lay or Medical, should have powers of inquiry extending to every description of business which is under the superintendence and authority of this Commission. In the hope of obtaining this [illegible]nent, we have forborne to press for any increase of the number of Inspectors.—We have the honour to be, your Excellency's obedient, faithful servants,

A. Power.
Naas.
Thos. A. Larcom.
J. M'Donnell, M.D.
R. M. Bellew.

Correspondence.

THE BI-LATERAL OPERATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—In the announcement of two operations of lithotomy performed successfully by Sir William Fergusson according to the Celsian method, in the last number of The Medical Press and Circular, it is stated "that Sir William considers the lunated incision to afford greater facilities for the extraction of the calculus, and incurs less danger of wounding the rectum. It would be desirable to know the age and other circumstances connected with these patients, and also whether there was a bi-lateral section of the neck of the bladder.

It is probably not known to the majority of your surgical readers that this bi-lateral operation was habitually performed by Dupuytren, who employed a double slightly-curved *bistouri cache*, and that it was also adopted in many cases by some other Parisian surgeon. The cases, however, to which a preference might be accorded to it over other operations for stone require discrimination. In my Jacksonian prize essay "On the Comparative Advantages of Lithotomy and Lithotrity," I recorded the statistics of this operation as performed by Dupuytren, from which it resulted that in most of the cases occurring in children and youngish subjects, it was less successful than the lateral operation, and that it seemed to be more adapted to cases in advanced life, where the calculus was larger and the prostate gland enlarged, the incision on both sides affording a greater space for the extraction, without its going much beyond the limits of the prostate, and thus obviating the urinary infiltration of the cellular texture, which an extensive one-sided incision would be almost sure to produce in similar cases, and to be followed by a fatal result. The lateral operation, thus discriminately employed, might be advantageously adopted in this country.—Your obedient servant, Edwin Lee.

TREATMENT OF AGUE BY HEAT TO THE SPINE

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—Dr. Chapman's comment on my letter of the 5th ult. is full of interest, and I for one think he is deserving of all praise for his talent in developing the science of the Profession.

Regarding his treatment of cholera, I think we may mutually assist each other. There is an old adage that "extremes meet." It will give me great pleasure in making Dr. Chapman's acquaintance, therefore I shall make myself known to him privately, for the purpose of comparing notes in any case of ague or cholera that may come under treatment. I think this will be advantageous to us both, possibly to the Profession at large ultimately.—Yours truly,

M.D., M.R.C.P.London.

A PLEA FOR OPIUM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—One cannot too much admire the descriptions of the so-called cerebro-spinal meningitis which we get from Ireland—a faithful portrayal of the most frightful of disorders—but it is sad to see the little disposition there is to trust in the results of experience. The only remedy which has proved of service in this complaint seems wholly neglected. I mean opium, the controlling action of which, on the disease, was first brought to the notice of the profession by M. Chauffard, as a result of his experience in the military hospital at Avignon in the epidemic of the years 1840-1. This physician was a disciple of Broussais, and little liable to yield to any evidence but of the most positive kind. Moreover, the history of these epidemics is in print, and alluded to in our compendiums of physic. I may shortly say that the whole bias of the profession in France was in favour of this practice. None more than the French were aware of the inadequacy of the term meningitis to characterise the epidemical affection. Among others M. Boudin insisted on the low type of the fever, the petechiæ,

and purple stains, *les tâches pourprées et même noires.* In the epidemics on the Spanish Peninsula the treatment recommended by M. Chauffard alone met with approbation; and hence my attention was first drawn to the subject. In the spotted fever of America enormous doses of opium have been given without producing sopor, and it was generally approved. Philip Woodman has the credit of being the first Englishman who described this complaint, under the head of a malignant fever with a coagulation of the blood *(i.e.*, increase of fibrine). This author strongly recommends the use of opium, especially where there are spots, and to "abate the fury of the nervous disorder," he denounces the use of purges, vomits, and, with slight exception, of glysters. Let the timid read Brachet, 1828, *Memoire sur l'emploi de l'Opium*, a most scrupulous writer, and see how fully he concedes the use of opium in arachnitis and cephalalgia apart from this question. I fear to weaken this plea for an old remedy by additional remarks, but my mind being long turned towards this subject I would direct attention to the second of Dr. Hayden's cases (MEDICAL PRESS AND CIRCULAR, June 5th, p. 531), as giving an insight into the *genesis* of this disorder. Abroad it has happened that cavalry regiments have been exclusively attacked, while at the same time the infantry were exempt; country villages when the towns escaped. If we are to look to positive causes in the production of such disease we may conjecture that the dung of horses and cattle undergoes a change which makes it infecting. The connection of this meningitis with cholera is probable, the same was commented on by M. Levy in the epidemic of Val de Grace, 1848, occurring between two cholera years. We seem, indeed, to return to the views of physicians in the fourteenth century, who have affirmed that pestilence is general in its influence, and that its character is not wholly comprised in a particular manifestation of disease.—I am, sir, yours faithfully, GEORGE GASKOIN, M.R.C.S.E.

ARMY MEDICAL DEPARTMENT.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Permit me to call the attention of your readers to a statement of Sir John Pakington's, made in reply to Mr. Synan's motion of the 5th inst., on promotion in the Army Medical Department. Sir John says "he did not believe that any gentleman would remain thirty years an Assistant-Surgeon *if* he were worth promoting." Sir John should have remembered that the little word "if" proved Mr. Synan's case, promotion being, as the rule, by seniority, not merit; the boon coming to the evil as to the good.

Mr. Synan deserves the gratitude of the department, for his advocacy of their cause, and it is pleasant to find so kindly a feeling existing towards the Profession, on the part of the Secretary at War; however, the want of promotion requires the most serious consideration of all about to enter the service. —I remain, your obedient servant, M.D.

ELECTION OF COUNCIL OF ROYAL COLLEGE OF SURGEONS (IRELAND).

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In your editorial remarks on the recent election of Council of Royal Colleges of Surgeons, published June 19, 1867, I find the following remark:—

"We venture to declare that the Metropolitan Fellows have not only declared, but proved, their desire for the assistance of their provincial brethren."

Allow me, through your columns, to suggest to the New Council a simple mode whereby *they can prove their desire* for provincial assistance:

Apply for, and obtain, a new charter, or have the present one so amended as to enable Fellows not resident in Dublin to vote in all College matters by proxy, and for election of Councillors by voting papers.—I am, &c.

THOS. H. BABINGTON, M.D.

SOCIETY FOR THE RELIEF OF POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The perusal of Mr. Denis Phelan's two last papers in your journal, in reference to a certain annual provision for the widows and children of Irish Poor-law Medical Officers as have inadequate means of support, has given me the greatest pleasure. I think that the whole profession should second Mr. Phelan's efforts to make some provision for our widows and children. I will be only too delighted to join a movement of the kind, and I am sure that very few of the Medical Officers attached to Workhouses and Dispensaries throughout Ireland will refuse to subscribe to a fund, when raised for this good purpose.

Let the Irish Medical Association take the matter in hands without delay, and I have no doubt they will confer a benefit on our profession which will always be remembered with gratitude.

The great desire which Mr. Denis Phelan has evinced on this occasion, as well as on many others, to improve the condition of our profession is worthy of all praise. I have no doubt, if the advice which he has given to the profession is taken, that it will not only redound to his honour, and be a lasting tribute to his memory; it will also elevate the profession by making it self-dependent, and take away a public reproach which has been attached to our ranks too long, viz., that we do not unite for self-preservation.—I remain, yours truly,

M. C. BERNARD.

Gleanings.

THE GOVERNMENT OF BUENOS AYRES AND THE CHOLERA.—Dr. Furst fell a victim during the epidemic. As an acknowledgment of his services, the Government of the province has undertaken his funeral expenses, and it has granted a pension of six hundred francs a month, for ten years, to his orphan children, besides the expenses of their education. —*L'Union Médicale d'Etoile Belge.*

MORTALITY OF BACHELORS.—Mothers of daughters in Scotland should hang up, in as conspicuous a position as possible, the late report of the Registrar-General of Births, Deaths, and Marriages. At every period of life, from legal infancy to second childhood, the bachelors die long before the married men. There is something quite pathetic in the mere statistics representing so many persons relegated to the silent tomb in consequence of being unable or unwilling to sustain existence with a wife. It is dangerous, however, to consider longevity as a proof of happiness. Asthmatic people will gasp through scores of years. It may be said they do not live long because of the asthma, but in spite of it. No one, however, should think of applying such an instance to the married subjects of the figures above mentioned.—*London Review.*

FUNERAL OF SIR WILLIAM LAWRENCE, BART.—The remains of this distinguished Surgeon were interred on Thursday last, in Ealing churchyard, by the side of those of his late wife. In pursuance of the wishes of the deceased, the funeral was as simple as possible. The only representative who attended from the Council of the College of Surgeons, with which institution he was so long connected, was Mr. John Flint Lant. It is still more extraordinary to relate that, from so large an Hospital as St. Bartholomew's, only Mr. Callender attended. Mr. Mitchell Henry and Dr. Tweedie were the only other members of the Profession.—*Times and Gazette.*

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—We understand that at the last meeting of the Faculty, Dr. Alexander Bryson, C.B., Licentiate of the Faculty, 1825, Director-General of the Medical Department of the Navy, &c., was unanimously elected an Honorary Fellow. This is an honour which the Faculty very rarely confer, and, in this instance, while graceful in them, it must be gratifying to Dr. Bryson to receive such a recognition of his public services, and of the high Professional position to which he has attained.—*North British Daily Mail.*

PROFESSIONAL TRADES' UNIONS.—An otherwise esteemed correspondent has forwarded to us the following minutes of evidence alleged to have been taken before a private Commission of Investigation, with the view of establishing that the system of coercion, intimidation, and persecution practised by trades' unions is in full force in the learned and liberal professions, and that it is unjust to indulge in sweeping condemnations of these societies among working men while the higher classes set them such a bad example. It is hardly necessary for us to point out that there can be no possible analogy between the rules made by knife-grinders and bricklayers and the laws of etiquette formed for regulating the affairs of officers and gentlemen, but we publish the evidence for what

it is worth, leaving it to our readers to form their own conclusions:—Sir Charles Verulam, Bart., M.D., examined—"Am a Member of the College of Physicians. Have been in practice upwards of thirty years. Am thoroughly acquainted with professional etiquette. Believe there is nothing like it. Have known a good many members 'rattened.' They were not 'rattened' for inexperience or immoral conduct. There offence was always a breach of etiquette. Knew Dr. Pullen well. Had a hand in getting him 'rattened.' He had undertaken a midwifery case. Consider such conduct disgraceful. Don't know why he did such a thing. Never heard that it was done to save life. Don't think that that would justify a physician in doing accoucheur's work. Remember the case of Colonel Johnson. He was seized with an apoplectic fit while travelling with his friend, Sir Harry Holcombe, the Court Physician; bleeding would have saved him, but Sir Harry declined to use a lancet, and the colonel died. Consider Sir Harry acted like a gentleman. See nothing unchristian or inhuman in adhering to etiquette. Do not consider the Colonel was murdered. Would certainly have 'rattened' Sir Harry if he had used a lancet. Have no compunction in expelling a member who breaks the rules. Don't think poverty any excuse for taking less than the established fee. Would certainly 'ratten' any member who took half a guinea. Never took less than a guinea myself, except once from the Marquis of Pimlico, who slipped a shilling into my hand instead of a sovereign. Did not find it out before he had gone. Don't think it was done on purpose. Don't know what becomes of members after they are expelled. Have known them practise in defiance of the rules. Consider such conduct immoral. Have heard of general practitioners. Don't remember ever seeing one. Don't wish to see one."—*Examiner.*

CLINICAL PRIZE ESSAY ON DISEASES OF THE SKIN.—We are informed that Mr. Hutchinson offers this year, as a clinical prize to the students of the London Hospital and those of the London Hospital for Diseases of the Skin, a well-bound and complete copy of "Wilson's Portraits of Diseases of the Skin," value £14, 14s.—*Times and Gazette.*

WE are glad to learn that the Institution of Civil Engineers, London, have awarded Mr. Edward Byrne, C.E., the Telford Medal and the Telford Prize of Books for his paper "On the Action of Charcoal in Removing the Organic and Inorganic Matters from Spring and River Waters," which was read before the Institution this session. Mr. Byrne conducted the investigation in the laboratory of the Museum of Irish Industry.—*Saunders' News Letter.*

Medical News.

ELECTION OF EXAMINERS—Queen's University, Ireland.—At a meeting of the Senate, held in Dublin Castle, on the 13th inst., the following, among other University Examiners, were elected:—

Medicine.—B. G. M'Dowell, M.D., Professor of Anatomy, Dublin University, Physician to the House of Industry Hospitals, and Surgeon to Sir Patrick Dun's Hospital; in succession to R. D. Lyons, M.B., Professor of Medicine in the Roman Catholic University, Physician to the House of Industry Hospitals, and to Maynooth College.

Surgery.—M. H. Stapleton, M.B., Examiner, R.C.S.I., Surgeon to the Mater Misericordiæ and Jervis-street Hospitals; in succession to Robert M'Donnell, M.D., F.R.S., the distinguished Physiologist.

Midwifery.—John A. Byrne, M.B., Professor of Midwifery in the Roman Catholic University, and Medical Officer to Grand Canal-street Dispensary District, South Dublin Union; in succession to L. Atthill, M.D., Registrar of the College of Physicians, and formerly Assistant-Physician to the Rotundo Lying-in Hospital.

Materia Medica and Medical Jurisprudence.—Francis B. Quinlan, M.D., Professor of Materia Medica in the Roman Catholic University, Medical Adviser to St. Vincent's Hospital, and Surgeon to the Government Convict Prison; in succession to W. D. Moore, M.D., the distinguished Translator and Editor of Medical Works in the Norse languages.

ROYAL HOSPITAL FOR INCURABLES.—Last week the foundation stone of the new wing to this valuable charity was laid in the presence of a goodly number of spectators and friends of the Institution by Lady Elcho—to whom the Treasurer, Mr. Henry Huth, expressed, in an appropriate speech, the pleasure and gratitude they all felt at the interest her ladyship had taken in the welfare of those for whom the benefits of the institution were intended. Lady Elcho then adverted to the claims of those who, through some dire calamity sought admission to the hospital, not perhaps to be cured, but at least to receive all the comforts that skill could devise, and concluded a most telling and sympathetic speech by declaring the foundation stone duly laid.

A BOY, eight years of age, about to undergo the operation for strabismus, died at the Manchester Eye Infirmary from the effects of chloroform.

THE *South London Press* says that Earl Spencer, as lord of the Manor of Wandsworth, has undertaken to lay out the common as a public recreation ground on the termination of the present legal proceedings.

THE DISEASES PREVENTION ACT.—A second supplement to the *London Gazette* of Friday, contains various orders of the Privy Council, relative to the Acts for the Prevention of Diseases. They continue in force for another six calendar months the Diseases Prevention Act, 1855, and the relative Act, 23rd and 24th Victoria, cap. 77, specify regulations for boards of guardians and vestries as to what shall be done when cholera is in a union, parish, or district, and renew for six months an order of January 10, 1867, relative to vessels infected with dangerous or infectious diseases.

CHOLERA.—A correspondent of the *Times*, at Malta, communicates the following respecting cholera:—"The official bulletins of the cholera in Sicily show that the disease is still on the increase, especially in the provinces of Girgenti and Caltanisetta. From the 11th of June to the 19th there were 3801 attacks and 1558 deaths in Girgenti; 1407 attacks and 586 deaths in Caltanisetta; and 23 attacks and 14 deaths in Mazzara. Later news by telegraph says that the epidemic is still raging. The distress is very great, and requisitions have been made by the authorities at Girgenti to the Italian Consul here for supplies of flour and block ice." The following is an extract of a letter from Tunis, dated the 26th of June:—"On the first breaking out of the cholera here this year it showed a tendency to spread in the town; but lately it has remained stationary as regards the number of cases in the town itself. About ten Europeans have died from it here, some of the attacks terminating fatally in a few hours. At the Goletta, the port of Tunis, however, the cases have been more numerous in proportion to the population, and along the whole coast of the Regency, especially at Susa, the disease has been very severe. At Susa the French vice-consul and another European were among the victims. The Bardo, a residence of the Bey of Tunis, and the Manuda, a country district in which are situated the villas of the Chief Tunisian families, have as yet escaped from the pestilence, as they have indeed always escaped in previous visitations." The alarm in Barbary is very great, and threatens to show itself in an exodus like that from Alexandria in 1865. Already the Lazzaretto at Malta is full to overflowing, although Government has intimated that owing to the very limited accommodation it affords, only British subjects, and none beyond a certain number, will be received. The Maltese population have caught the alarm, and, knowing too well from the past and sad experience the danger of admitting into the island crowds of refugees from cholera-infested countries, even if the Lazzaretto were large enough to hold them, have represented through the elected members of council, and by petition the necessity of immediate and energetic measures being taken to check the evil, and they also pray the Government to enforce a more rigorous system of quarantine in regard to those persons already in the Lazzaretto. The petitioners go so far as to beg the Government to prohibit the admission of all emigrants from Barbary and Sicily, and such places where cholera is raging, pointing out the fact that in 1865 it was only by rejecting all arrivals from infected countries that Sicily was preserved from cholera, and that the disease was also kept out of Tunis by the very strict quarantine regulations adopted by the Tunisian Government. The example of Greece, which we believe has enjoyed immunity from cholera on every occasion that it has visited Europe, might also be quoted as strong corroborative evidence in favour of the efficacy of strict precautionary measures. In the meanwhile the quarantine at Malta has been increased from 15 days to 21 days on arrivals from Manfredonia, round Calabria Ultra, as far as the Gulf of Salerno; and a quarantine of 21 days has been established on arrivals from Naples and neighbouring ports, as also from the east coast of Algeria, between Philippeville and the boundaries of the province of Tunis.

Original Communications.

CASE OF OLD STANDING DISLOCATION OF THE HUMERUS.

REDUCTION ELEVEN WEEKS AFTER THE OCCURRENCE OF THE ACCIDENT.

(Read before the Ulster Medical Society.)

By W. MAC CORMAC, M.A., M.D., F.R.C.S.I.;
SURGEON, BELFAST GENERAL HOSPITAL.

THE following cases are, I conceive, of sufficient moment to interest the members of the society. I do not, therefore, consider any apology needful in respect of bringing them forward.

The particulars of the first case I have abridged from notes most carefully taken at the time by one of my clinical clerks, Mr. Joseph Smyth, and are as follows :—

George Johnston, 34 years of age, a bricklayer's labourer, was admitted under my care into the General Hospital, Belfast, November 22, 1866.

He gave the following account of how he had met with the accident. Nine weeks since, while "drunk and disorderly," he had fallen into the hands of the police. Considerable violence was required in order to effect his arrest. During the struggle he either fell or was thrown down, and it was then, he believes, that he sustained the injury. His hands were subsequently manacled behind his back, but the pain which this occasioned became so excessive as to necessitate their release.

On the following day, Sunday, as he was suffering very much, his friends thought it expedient to procure medical advice. He was, however, directed merely to stupe the parts with warm water, the nature of the injury, apparently, not having been recognised. Next day the magistrate sentenced him to sixty days' imprisonment. Whilst in gaol, the attention of the surgeon, it appears, was not drawn to the condition of the shoulder. A few days after his time had expired, the man finding himself unable to work, applied to me, and I advised him to go into hospital, which he gladly consented to do.

On examination, the patient was found to be labouring under dislocation of the right humerus, beneath the coracoid process of the scapula, the "infra-coracoid" dislocation of Malgaigne. The acromion process was very prominent, whilst the shoulder had become much flattened, not only from displacement of the head of the bone, but from the atrophy of the deltoid muscles which had ensued. On careful admeasurement, the affected limb was found shortened only one eighth of an inch, while the vertical circumference of the axilla and acromion was increased two inches, a sign first pointed out, and looked upon as a pathognomonic by Mr. Callender. The fore-arm was in a state of semi-pronation, the arm being directed somewhat backwards, and also slightly abducted. The head of the bone could be felt in the axilla when the arm was raised, but not otherwise. Obscure crepitus, pointed out by Sir Astley Cooper as simulating fracture, could readily be detected by rotating the head of the humerus in its new position.

Although considerable power of motion had been acquired, so much so that the man, whilst in gaol, could pick oakum, and even rake the walks, he could not elevate his injured arm without the assistance of the other arm, while the effort occasioned much suffering. He could touch his lips with his fingers, but he could not convey food to his mouth. He had, indeed, to feed himself with the left hand. In short, the limb had become useless to him for the purposes of earning his bread.

On Saturday, the 24th November, precisely ten weeks since the accident had occurred, the man was placed fully under the influence of chloroform, and forcible reduction attempted by means of the pulleys. Extension and counter extension were gradually made, and kept up for a considerable time, with no other effect than breaking down, more or less completely, the new adhesions formed by the head of the bone. The direction of the traction was obliquely downwards and outwards. While the patient was still in an unresisting condition, and the muscles were quite flaccid, before the effects of the chloroform had passed off, White, or La Mothe's plan was tried—the arm being pulled almost directly upwards, the shoulder being depressed by the foot planted firmly against it. The heel was also tried in the axilla. On the 27th, no inflammation or evil effects having followed the previous trial, another effort was made, lasting about half-an-hour, and also under chloroform. Extension was tried in a downward direction, and afterwards manipulation was had recourse to, one hand grasping the head of the bone, whilst the other rotated the arm inwards. The most patient efforts, in this and other ways, obtained no better results than on the previous occasion, and the attempt had, perforce, to be abandoned.

I now almost decided, seeing the risk apt to be incurred from applying so much force, to make no further trial. But an examination of the man's arm, with its almost useless condition, the great and continuous pain which he suffered, especially on trying to raise it, induced me again to make a trial.

Knowing the difficulty of these cases to reside mainly in not employing adequate counter-extension, and sufficiently fixing the scapula, I adopted a suggestion which I owe to Professor Tanner of Cork. It consists in moulding accurately a gutta-percha shield, with a hole in the centre for the arm to protrude, over the back, front, and side of the chest, and round the root of the neck. By this means, the scapula and clavicle were very firmly fixed, and a large surface was available over which to distribute the power employed. The shield was now carefully padded with cotton wool, and re-applied, a sheet passed round it, the arm attached to pulleys above the elbow, and traction so managed as to draw the arm at right angles to the trunk. The fore-arm itself was flexed at a right angle, as well as carefully bandaged. Chloroform having been administered, the pulleys were gradually brought into action for some ten minutes, the humerus at the same time being alternately rotated inwards and outwards. It was then found that the head of the bone had shifted its position externally for fully half-an-inch, and was disengaged from beneath the coracoid, while the adhesions were felt to give way. I now executed the following manœuvre, by means of which I fortunately succeeded in replacing the bone in the glenoid cavity. Firmly depressing the shoulder with my hand, I pulled the neck of the humerus in the opposite direction, by a strap passing round it and over my neck. I requested my colleague, Dr. Murney, who kindly and ably assisted me, to rotate the limb inwards, forcibly at a given moment. All these preparations having been completed, word was given to let go the pulleys. These were slackened in an instant, when it was found that the head of the bone was in its place. Thus, by means of this combined movement, an old standing dislocation, which had resisted our utmost efforts on two previous occasions, was reduced exactly seventy-seven days after its occurrence.

The shield of gutta-percha was now cut off, while the elbow was kept fixed to the side, and retained there by bandages subsequently sewed together. The skin, which had previously been much abraded by the sheet, was this time unruffled, having been thoroughly protected by the gutta-percha, and that too, notwithstanding the much greater additional force employed. Although the bone was in its place, the prominence of the head, anteriorly, was so marked, as almost to make one fear it could not be so. The muscles around the joint were quite atrophied, causing undue projection of the acromion and spine of the scapula. Nine days after, the bandages were removed, and the patient was allowed to move his arm in a forward direction, as well as to rotate it inwards, but he was enjoined not to exercise it by the reverse movements.

On the 13th I made measurements of the shoulder, and found that the difference of the vertical circumference of the joints had become reduced from two inches to three-quarters

of an inch. The transverse diameter of the injured side, taken with callipers, was still one-eighth of an inch greater than the other.

Ten days after, though the man was enjoined to use his arm, and though passive motion was employed daily by myself, I found, on examination, that there was little movement of the arm independent of the scapula, to which it seemed anchylosed. Any attempt forcibly to break down the adhesions, except under chloroform, would have occasioned great pain. The patient, therefore, was put under the influence of the anæsthetic, and having caused my assistants to fix the scapula with their hands, I steadied the head of the bone with my left hand, while I raised the humerus to rather more than a right angle with the other. It was easy both to hear and feel the adhesions giving way, which they did with a peculiar tearing, crackling sound. No inconvenience followed, some temporary soreness excepted, while the additional freedom of action acquired was very considerable.

Before the man had left the Hospital, Jan. 25, 1867, he could readily swing the heavy poker of the ward round his head, stretch both hands equally high against the wall, and perform a number of other feats, which showed that he was rapidly regaining the full power of the extremity. Some months after his discharge, I saw him returning from work carrying a bucket in one hand, and a shovel in the other. He stated that he was always getting more and more command over his arm, and that it was now nearly as useful to him as ever.

Such cases are, in many respects, of great practical importance, and I purposely detained Johnston somewhat longer in hospital than was absolutely necessary, in order that the students might thereby benefit accordingly. In the first place, when the man came under my notice he was quite unaware of the nature of the injury which he had sustained, and his principle complaint was of pain in the neighbourhood of the elbow and fore-arm. He complained of no pain whatever in the shoulder, but only that it was stiff. A short time since, indeed, a carpenter was admitted to hospital with a dislocation of the humerus, which he had believed was a strain, and had treated with liniment conformably ; and it was not until nearly a fortnight had elapsed that, finding himself getting no better, he consulted a medical man. Such instances should ensure the exercise of caution in similar circumstances. Great swelling of the soft parts may, and sometimes does, render the symptoms in the event of such injuries obscure; and Hamilton, of New York, mentions two cases in which New York Hospital Surgeons, only a few hours after the receipt of the accident, had failed, from this cause, to ascertain the nature of the injury. In one of these cases reduction was effected by Dr. Hamilton on the seventh, and in the other on the tenth day.

Although, in Johnston's instance, the dislocation was reduced only a week short of the time fixed by Sir Astley Cooper, as the limit beyond which no attempts should be made, many cases are on record where reduction has been accomplished after much longer periods. It should, however, be remembered that such trials are attended with great risk. Rupture of the axillary artery has but too frequently taken place, and in one instance the nerves of the brachial plexus were actually torn out by the roots. At the same time injurious or fatal results are by no means customarily or uniformly made known.

The force employed on the third trial was simply enormous, and it was all required to pull the bone from beneath the coracoid, and tear up the abnormal adhesions. Its application proved as safe as it was effectual, owing to the equable manner in which the pressure was distributed, and the complete way in which the scapula was fixed by the gutta-percha shield. The principle is the same as that of Sir Astley Cooper's split sheet, but it is vastly more efficient. To its employment, indeed, I feel, to a large extent, indebted for the satisfactory issue of the case.

The after progress of the patient was all that could be desired, and the rapid way in which he regained power of motion in the extremity, after such long disuse, was much facilitated by breaking down forcibly the spurious anchylosis between the scapula and humerus, and by the persistent daily employment of passive motion.

In conclusion, I would observe that the forward projection of the head of the bone gradually but not altogether subsided. It is, indeed, important to be aware of this not uncommon occurrence, after reduction of old standing luxations, a circumstance which Hamilton states, has frequently led to charges of malpraxis sometimes successfully, though most unjustly, sustained.

PYÆMIA, WITH EXTENSIVE LESIONS SUPERVENING UPON INJURY OF THE HEAD—DEATH.

The following history serves to show that the body will sometimes be invaded by disease of a most extensive character, and yet the signs of its presence prove very obscure. It presents, as well, some features of medico-legal interest :—

Thomas Gamble, 14 years old, a mill-worker, came under my care in hospital on December 17th. Four days previously, while leaving his work, he was struck on the forehead by another boy with a heavy iron bar some two feet long, inflicting a wound on the forehead, and at the same time knocking him down. The house-surgeon dressed the wound, and recommended the lad to remain in hospital, as the pericranium had been stripped off and the bone was laid bare. This, however, the boy at the time refused to do.

When he did seek admission, a vertical wound was found almost in the centre of the forehead, unhealthy looking, and secreting a considerable quantity of pus. The boy complained of headache, but there was no urgent symptom whatever about the case otherwise.

On the 19th his condition seemed much improved. The wound looked more healthy, and the headache was less.

On the 21st he first complained of his chest. He was annoyed by a short tickling cough, and the sputa were rusty coloured. A stethoscopic examination revealed marked dulness posteriorly over the lower part of the left lung. On the same side in front and above there were great resonance on percussion, and puerile respiration. In the upper part of the right lung well-marked bronchitic râles were heard. He was ordered suitable medicine, and a nourishing diet. Two days after, the 23rd, the chest symptoms became very urgent. The boy's condition was that of a person prostrated with typhoid pneumonia. He was so weak, with a pulse at 125, and hurried, laboured respiration, that it was impossible to make a satisfactory examination. My colleague, Dr. Smith, saw the patient with me on the 25th, and we came to the conclusion that there was evidence of general bronchitis and pneumonia of the lower lobe of the left lung. I need not detail the progress downwards of Gamble's case. He became daily worse and weaker in spite of the most stimulant treatment. He was perfectly sensible and conscious up to his decease. There was no evidence of grave mischief, or any mischief at all, going on within the head, save the headache, which was persistent. He did not even wander in his sleep until the last few nights, and, though very weak, answered any questions put to him in a perfectly collected manner, even when I last saw him alive, on New Year's Eve. He died on the morning of the 1st January, 1867. A post-mortem examination was made fifty-two hours afterwards. The wound was quite unhealed, and its edges blackened from decomposition. On removing the scalp, a groove about an inch and a half in length, involving only the external table, was seen in the frontal bone. It appeared as if made by some blunt instrument. To the right of this groove was a yellow stripe, as if of matter contained in the bone. No fracture or fissure was observed at this time. The calvarium was now removed, whereupon thick yellow pus exuded, through the dura mater, from the anterior part of the right hemisphere, and also lay in contact with the skull. When the membrane was taken off it was found that the entire surface of the right hemisphere was

covered with thick greenish-yellow pus, about from two to three ounces in quantity. The anterior convolutions were depressed by it to the extent of quarter of an inch, so as to convey the appearance of loss of substance until the matter had been carefully pressed off with the handle of a scalpel, when they resumed their normal level. There was great congestion of the base of the brain and of the membranes. On section, nothing abnormal was discovered in the interior.

In the left pleural cavity there were found some forty ounces of straw coloured serum. An immense quantity of recent lymph had been poured out. The lower lobe of the lung was solidified, and the upper much congested. On section, a large number of small abscesses were found, perfectly circumscribed, and containing a thick greenish-yellow pus.

In the right lung a similar condition of affairs presented itself. There was not so much serum or lymph, but the abscesses were numerous, and two of them very large.

In the abdomen nothing abnormal could be discovered. On subsequently examining the calvarium, when cleaned, I discovered a minute fissure in the yellow part of the bone, which proved, on section, to contain pus in its diploe. In this way a chain of communication seemed to have been established between the suppurating wound on the head and the other lesions that were found. Purulent absorption had taken place, inducing pyæmia, with purulent depots or secondary abscesses in the lungs. It is a curious feature in the case, that so little that was indicative of brain disease had attracted attention during the life of the patient. It was remarkable that the brain should submit to so much pressure, that its convolutions should be largely depressed, and that no other symptom should result save headache.

At the trial of the boy who inflicted the injury, the counsel for the defence attempted to prove that the intimate connection between the disorder found in the chest and the injury of the head, as asserted in the medical evidence, was a groundless hypothesis—that the boy had enough of disease in his chest to kill him, independent of the head affection altogether, and that, consequently, no intelligent jury could possibly convict the prisoner of killing my patient. This plea, even had it been sustained, would, however, have been of no legal importance, as, whether the victim of violence be labouring under incurable disease or not, does not affect the legal guilt of the person committing the violence, however it may influence the amount of punishment awarded.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. III.—OF THE LAW OF CONSERVATIVE DEPOSITION, OR DETERMINATION TO SURFACE.

From what has been already observed, it would appear that the improvement of the general health consists in, 1st, Equalizing the functions of the various organs of the body, so that each organ does its own share of work with no greater variation than results from the natural force in accommodating itself to natural varieties of external or internal influences. Before, however, we consider the mode in which this can be most auspiciously attempted, it will be necessary to remark on certain phenomena which have led me to employ the terms at the head of this paper. Many authors have thought it useful to consider the nature of "life" as an abstract force—and because their labours have been unprofitable, it has been too readily assumed that the variety of actions by which this force is exemplified in organised beings, constituted an obscurity, impenetrable to many who sought to develop the law or laws which they obeyed in common. This I believe to have been the source of great mischief. We know nothing of life as a abstract force it is true, but we know just as much of it as we do of light, heat, electricity, and magnetism. We know, in fact, nothing of the intrinsic nature of such forces, but we are capable of observing the phenomena they exhibit, and whenever the investigation is scientifically conducted, it is just as fruitful as the study of the abstract nature of these forces is barren. I need scarcely observe that all these forces have certain habits which, from the uniformity they present under similar circumstances, we regard as laws. It is, indeed, probable that on all subjects, those which, in our present knowledge, we call laws, are but axioms, as steps to higher generalizations. I cannot here repeat or extend what I have elsewhere written, but it is necessary, in order to clearness, that I should state briefly what I have enunciated elsewhere as the law which determines the site of diseased actions. I cannot assert, however, whether it be the law of inflammation, as first called the law of deposition, the law of determination to surface, or the conservative law. It is clear to me that valuable as the generalization is, it is only subordinate to some one higher, which we shall, no doubt, arrive at in the progress of really scientific investigation.

John Hunter had remarked on the tendency of bullets and other foreign bodies, as also of abscesses, to the surface, but had gone no further towards the generalization, which I first submitted in "Medicine and Surgery; one Inductive Science." The phenomena on which I founded the generalization are clear and indisputable, and will serve as guides with which we can seldom dispense, if we are to adopt anything like science in the treatment of disease.

These phenomena show that, *cæteris paribus*, "there is always a tendency to surface, and that, as a rule, it is coincident with a conservative tendency. Now, I beg the reader to regard these as separate propositions, because, although I regard them as alike indisputable, they rest on different grounds," the one being simply a demonstrable fact, the other the result of what I believe to be an unavoidable conclusion. A better opportunity of discussing the primary phenomena will occur as we proceed, therefore, I will at once draw attention to the sites of diseased action so called. The surface of the body, the skin, is so commonly the seat of diseased actions, and presents such a number and variety, that what are usually in common parlance called diseases of the skin, not only exceed, as regards outward manifestations of disease, those placed on any other site, but that of all others put together.

That modified inversion of the skin which constitutes the mucous membranes of the body, seems to present the next site in order of frequency.

It must be recollected that I here intend such abnormal actions as are usually termed disease, because if we were to regard every abnormal increase of secretion from these surfaces as disease, we should probably find them equal in number to those of the skin itself. But as we proceed I think we shall find it more correct to place mere increase of secretion, within certain bounds, in another category—in that which treats of actions which usually precede what we more commonly mean by the term disease. The mucous membranes represent the outlets to the body, which is an important feature to be kept in view in this generalization. The cellular tissue seems now to be the most frequent seat of diseased action. The mortar, as it were, as distinguished from the more essential material of the building. Here we find at their commencement all the numerous and dissimilar family of tumours, and those actions, which we referred to the skin, might be with equal propriety, at their *commencement*, be said to be in the cellular tissue. Even in cases where the mucous canals become the seats of new depositions, they almost always *begin* in the cellular tissue, exterior to the mucous membrane.

In this stage of our enquiry we begin to see something

of a conservative character in our phenomena. Whether we regard the outlets whence increased secretion has occurred, or, so to speak, the relative value of merely cellular or other structures, it begins to look as if the mischief were referred to parts which were either of less importance, or endowed with powers of absolute expulsion of the results of disordered action. Well, we proceed with other structures, and find that joints and glandular structures come next in frequency, and that at the commencement the external and membranous structures of joints are more frequently the seats of disease, *cæteris paribus*, than the bones which they cover. On examining the interior structures of the body we find the same tendencies to surface. I will not venture to estimate the vast majority of affections of the serous membranes of the body, as opposed to the actual substance of the organs invested by them. A man can hardly have examined even a hundred bodies, without perceiving this majority. The membranes of the brain, lungs, heart, abdominal viscera, and as a rare dissection has shewn even in the testes; all exemplify the vastly greater frequency of diseased actions in those parts, as compared to that of the substance of the organs they invest. Here we are tempted to use a new nomenclature, if for no other purpose, than as a scaffolding whence to ask further questions.

So far the result is certainly of a conservative character, as the tendency is from the more to the less important part. If this be so, is there any type or character in the history of the diseases or disorders, as the case may be, of the internal organs themselves, of this conservative tendency? We will not anticipate, but seek to find an answer in the further consideration of phenomena.

Mr. Hunter appears to me to have made the whole of his anatomical researches subservient to their highest application, viz., the more advantageous observation and interpretation of the phenomena exhibited by the body as a whole. With one remarkable and warning exception, which will form the subject of careful discussion before these papers are concluded, Mr. Hunter's researches were conducted in a strictly inductive spirit. It was this "circumspection" which presided over almost everything he did, that led Abernethy, with characteristic felicity of expression, to call him that "Argus-eyed" man. Hunter never sought the nature of any function from any single animal, but from animals in general. In like manner, his contemplation of the body as a whole is in remarkable contrast with the spirit in which so much subsequent investigation has been directed to individual organs.

Before we proceed to other phenomena, it is well to consider a little, those which we have already collected. Suppose we say for the present that as to site the order of frequency of disordered or diseased action, as distinguished from ordinary increase or alternation of secretion (by and bye to be more specially considered), be as follows:—

Skin Mucous membranes Glands (absorbent) Membranes of joints Bones of joints Serous membranes Organs invested thereby	Cellular tissue as first affected.

Now it is here necessary to remember that all laws are subject to interference; indeed, we can not name any law that I know of in nature which may not be *interfered* with by some other law. When we are exemplifying certain manifestations, we always speak with the suppressed premise that supposes "ordinary circumstances."

In like manner the law which determines, under circumstances of ordinary or normal power, the succession as to frequency, may be interfered with, so that any one site may be passed over. Direct injuries, whether mechanical or not, will necessarily determine the action of repair to the part. But as the complete obedience to the law supposes normal power, or non-interference—so the one being minus or the other present, any one of the sites mentioned may be passed over. I beg the reader to hold this in mind whether he agrees with it or not, because I have no doubt he will acknowledge the importance of this recognition, and find at the bedside, as we proceed, that it is not only a good guide to the detection of what the interference is, but an admirable test of the soundness of the generalization.

The power being normal, the succession of sites will be observed though there may be years between the occurrence of the phenomena, and thus may escape, as they have done, observation—or the succession of phenomena and sites may take place in a few months, or any shorter time. And again, the power varying—or what will be more demonstrable, the interfering influences greater—some, or any one of the more conservative sites may be stepped over, so to speak. In such cases, joints, serous membranes, any part may be attacked—the skin having never shown any phenomena or outward and visible sign. But those very cases, on investigation, will not be found to oppose, so much as they prove, the rule or law. This is all I have space for as yet, as regards the vast assemblage of phenomena which illustrate, so far, the law under discussion.

It now becomes necessary to consider, somewhat briefly, other phenomena which were particularly the subject of study by Hunter; first, because they have important relation to the law I have sketched; and, secondly, because it is necessary that these phenomena should be borne in mind, in estimating the correctness or use of the principles which it is my desire to enunciate. The phenomena which I have discussed more largely elsewhere are those which Mr. Hunter ranged under the term Sympathy. They attracted little notice in his time, and, I believe, scarcely any, except from two great minds, Cline and Abernethy. Mr. Abernethy said that the lectures excited so little interest that one half of the audience would be napping, and the other "gigling," but these great men did neither. Mr. Cline said, as Mr Clift once told me, "Sir," said he, "we must all go to school again." Abernethy arrived at the more salient results, which had an important bearing on the principles he taught when he said that "John Hunter showed that the whole body sympathized with all the parts," which is, by no great license of thought, translatable into the "Constitutional instinct of local disease." But here Abernethy, with that rapid perceptivity which enabled him to pluck, as I have said, a jewel from a mass of heterogeneous accompaniments, missed a great deal, the knowledge of which is absolutely necessary to the full development of his own principles. The truth is, that the phenomena of sympathy unfold to us relations of the first practical value, which involve no hypothesis, which are "inexorable" facts, and which can be obtained from no other source. In the next commentary I will endeavour briefly to summarize some of these facts and their practical bearings.

CEREBRO-SPINAL FEVER: ITS TREATMENT BY MEANS OF ICE.

By JOHN CHAPMAN, M.D., M.R.C.P.,
PHYSICIAN TO THE FARRINGDON DISPENSARY.

(Continued from page 54.)

HAVING, in my previous paper, described a method which I have devised, by which ice may be conveniently and very easily applied to the whole or to different parts of the spine, and having shown that, according to the authoritative testimony of Dr. Todd, the application of ice to the spine is, at all events, in some cases, of great use, I now proceed to adduce some facts and arguments which will perhaps be recognised as constituting strong *à priori* grounds for the opinion that the application of ice along the spine, as well as to the head, is likely to prove the most successful plan of treating Cerebro-Spinal Fever. If I succeed in this endeavour, the conclusion which I shall have justified, considered in connection with the actual experience already obtained in the treatment of this disease by means of ice, as described in an article in this

Journal for July 10, will, I hope, induce physicians to give the method in question a careful trial, whenever they have opportunities of doing so.

It is generally admitted that all the characteristic phenomena of cerebro-spinal fever denote that its chief seat is in the nervous system: those who maintain that the disease is the result of a blood-poison, and regard the morbid affections of the nervous system as secondary, and those who are of opinion that the first morbid change occurs in the nervous system, the symptoms usually referred to blood-poisoning being, in fact, due to the morbidly exalted action of that system, alike recognize that the principal lesions observable occur in the cerebro-spinal axis and its membranes, and that most of the distinguishing features of the malady are fully accounted for by the presence of those lesions.

I shall not now enter on the discussion whether or not the disease is due to a blood-poison, but it may be well to observe here that if a blood-poison were even recognised as its cause, until we ascertain indisputably the precise character of the supposed poison, as well as its *modus operandi* in producing the phenomena of the disease, it is not less hazardous than unscientific to treat the malady by administering empirically a variety of drugs, the action of which on the supposed poison is no less hypothetical and unknown than is the poison itself. Under such circumstances, the only course at once philosophical and safe is that of "treating symptoms" *by endeavouring in all cases when the proximate causes of those symptoms are known, to remove those causes.*

I am especially emphatic on this point, because there are different methods of "treating symptoms"—methods not only different, but in many instances diametrically opposed to each other. For example, in cases of cerebral excitement due to hyperæmia, the administration of opium in sufficient quantity, and the application of cold to the head, will each subdue the symptoms; but the mode of action, and probably the results of the two agents, are widely different. The opium induces such an increase of the morbid state which it is intended to remedy, as to constitute cerebral congestion, the presence of which is associated with quiescence; and as the influence of the drug on the brain subsides, while that influence on the vaso-motor nerve-centres is still active, cerebral anæmia may be induced, with permanent subjugation of the symptoms in question. But how often in such cases opium, while failing to produce this result, increases the dangerous condition against which it is employed, and while masking it, lulls the Physician into a state of false security, causing him to lose the precious time during which alone he has a chance of saving his patient, is, I believe, only too well-known to those who have extensive experience of this method. On the other hand, cold judiciously applied to the head acts as a direct sedative by lessening the amount of blood in the brain, and thus removing the cause of the symptoms, is a method of treatment at once scientific, effective, and free from the grave objection of certainly "doing evil" that possibly "good may come."

It seems to me that the symptoms of cerebro-spinal fever are conveniently divisible into three groups, the most distinctive features of which may be enumerated as follows:—

1.—*Symptoms of hyperæmia or inflammation of the encephalon: headache, mental depression, taciturnity, incoherence, hallucinations, vertigo, delirium, carphologia, somnolency, stupor, coma, contracted pupil, strabismus and other disorders of the eye, deafness.*

2.—*Symptoms of inflammation of the spinal cord and its membranes: pain along the spine and in the limbs, hyperæsthesia, trismus, retraction of the head, opisthotonos, pleurothotonos, rigidity of the recti muscles, contraction of the muscles of the extremities, convulsions, subsultus tendinum, excessive abundance of urine—often of low specific gravity, erotic desires—priapism, swelling of the tongue, nausea, vomiting, diarrhœa, petechiæ and vibices.*

3.—*Symptoms of hyperæmia—proceeding, it may be, to inflammation—of the ganglia of the sympathetic: chills, shiverings, flushes, and other morbid variations in the temperature of the skin, constipation, dilated pupils.*

Now, if the first group of symptoms be duly considered in connection with all the other phenomena of the disease, and especially the post-mortem revelations, we shall be led to the conclusion that the disordered circulation of the brain denoted by these symptoms, is one characterised by an excessive determination of blood to that organ. But this condition varies, of course, extremely in different cases, as well as at different periods of the disease in each case, and, action being commonly followed by reaction, afflux by efflux, it is not improbable that, in some cases, cerebral anæmia may succeed to cerebral hyperæmia, and that inasmuch as some of the symptoms of both states closely resemble each other, there may be danger without careful study of misinterpreting their significance. Headache, incoherence, hallucinations, vertigo, delirium, functional disorders of the eyes and ears, may alike co-exist with an excess or deficiency of blood in the brain; mental depression, taciturnity, somnolency, stupor, coma, may either denote that the brain is so full of blood that circulation is greatly restrained—perhaps all but arrested, or that it is so far deprived of the vital fluid that its functions are ceasing because its supply of nourishment is being cut off. But if all the conditions of the patient be studied attentively, and especially if the temperature of the head be carefully noted, there will be little difficulty in appreciating the actual condition of the cerebral circulation. Of course the treatment, either by medicines or by local and external applications of cold or heat, must be correspondingly different.

The treatment of an excessive afflux of blood to the head, resulting in degrees of injury ranging from slight functional disorder to acute inflammation, by the external application of cold is habitually resorted to, and is a process seemingly so simple that I may, perhaps, be thought to be wasting the time of my readers in offering any suggestions respecting it. There are, however, one or two which probably they have not duly considered, and which, I believe, are of great practical importance. If ice in a bladder, or india-rubber bag, be applied to the forehead of a healthy person, it will exert such a depressing influence on the brain as to become speedily intolerable, and, as I can testify, it may, in some cases, abolish consciousness; but if the cold be applied across the back and base of the head, from ear to ear, it may generally be borne for a long period, and hence, while a patient may rest the back of the head on an ice-pillow with impunity, and in cases where the use of cold is indicated with great advantage, the application of ice to the forehead needs to be watched with the greatest assiduity—its application, removal, and reapplication being regulated according to the symptoms and feelings of the patient. The most convenient plan I know of applying ice to the head is by means of the same bags which I use in applying ice to the spine: for adults, a bag about ten inches long, by four and a half wide, which being, in the first instance, made for the application of ice along the lumbar region, I called the "lumbar ice-bag," is especially convenient. It forms an excellent ice-pillow, or, if the patient wishes to sit up or move about, it can be kept across the occiput by a handkerchief tied round the head; it may also be applied over the vertix and forehead with great facility and comfort. I may here remark that cold can generally be borne longer over the coronal region than over the forehead, and that when applied to the latter, it can be borne for the greatest length of time without injury, if an attendant, holding the bag by each end, will glide it gently to and fro, applying it in succession to the upper and lower part of the forehead, now to one temple, then to the other. If it be desirable to apply cold more extensively and continuously, this may be very conveniently done by means of a full length spinal ice-bag, which, being placed across the occiput, and the two ends of it brought forward to the temples, may be bound in its place by a handkerchief. Care should be taken that the bag passes above the ears so as not to subject them to the cold.

For applying ice to the heads of children, shorter and narrower bags are necessary. The smallest spinal ice-bag yet made, which is eight inches long, and narrow in proportion, forms an excellent ice-pillow for infants; and of course the bags ten inches long and upwards answer equally well for "children of larger growth." In closing these suggestions concerning the application of ice to the head, I must insist upon the great importance of consulting the feelings of the patient: if ice applied across the forehead, for instance, should produce distress, the physician may rest assured that it is at the same time doing harm, and I urgently recommend all who apply cold or heat to the head or spine to act upon the general maxim, when either the one or the other is distressing, it is injurious, and, on the contrary, when it is agreeable, it is beneficial. Respecting the treatment of the disease in question, it is an extremely fortunate circumstance that that part of the head where the sedative influence of cold is most needed—viz., the occiput, is precisely the part where its application is tolerated for the greatest length of time; and I may add that *so long* as *dry* cold thus applied is tolerable, its application may be continued with perfect safety.

I will now advert to the use of cold and heat, as agents by which the circulation of blood in the head may be *indirectly* modified. In cases of cerebral hyperæmia or congestion not associated with any distinctive and like disorder of the spinal cord, the application of heat along the lower cervical and upper dorsal vertebræ will usually result in reducing the cerebral circulation. But, as in cerebro-spinal fever, the cord as well as the brain is more or less inflamed, it seems to me that heat thus applied may possibly not do good, but harm. Bearing in mind, however, the well-known fact, as well as the reasons for it—viz., that inflamed parts are sometimes treated most beneficially by the application of heat, sometimes by the application of cold.* I should not think much risk of injury would be incurred by applying heat as mentioned, and, in cases in which seemingly the disease is mainly restricted to the brain, I should be disposed to try it. The spinal water-bag which I employ for the application of heat is peculiarly adapted for its use, if it can be used at all, for the treatment of this disease: it consists of two parallel columns a certain distance apart, and united at top and bottom. The heat is thus applied along each side, but not over the spine, and therefore, in so far as the vaso-motor nerve centres related to the cerebral arteries may be influenced by heat, they are thus influenced by this method, while the amount of heat inevitably reaching the spinal cord at the same time, is reduced to a minimum. The eight-inch bag is the most suitable one for the purpose here intended. The temperature of the water used should not be less than 110°, or more than 120° Fah. I cannot emphasize too strongly the truth that the lower the temperature of the water consistently with obtaining the object in view, the better: the chances of reaction are correspondingly less; whereas, if water of a high temperature be employed, its *direct* influence as an excitant on the cord, and through it on the brain, will more than counterbalance its *indirect* sedative influence operating through the agency of the sympathetic.

Another method of exerting a sedative influence on the brain consists in the application of ice along the lower third of the spinal cord, *care being taken that the cold does not extend at all on to the sacrum.* The influence of the ice thus applied on the cerebral circulation is two-fold:—*First*, by its directly sedative influence on the lower part of the spinal cord it cuts of all those exciting impressions, which, owing to its morbid state, might otherwise be propagated from it to the brain. *Second*, the sedative influence of the ice on the collateral sympathetic ganglia conduces to the dilatation of the arteries throughout the lower half of the body, a proportionately increased supply of blood, therefore, pervades it, and, inasmuch as the total amount in the body remains the same, a certain quantity of that increased supply is necessarily derived from the brain. Ice may be thus applied in suitable cases for hours together with perfect safety; but in the treatment of women the power of ice when applied in the lumbar region to promote or increase the menstrual flow, must be borne in mind. An extensive experience enables me to state confidently that by the daily use of ice in this manner, a distinctly sedative influence on the brain may be exerted.

The practice of applying heat to the feet, in order to derive blood from the brain, is so common, and its efficacy is so well appreciated, that I advert to it only for the sake of making one remark in the shape of a caution. If the feet be put in very hot water, the result is to raise the temperature of all the blood throughout the body. As each part of the blood which courses through the feet receives from the water a certain amount of heat in addition to that from the chemical changes incidental to its passage through the capillaries, the heat thus obtained in excess of the normal amount, is carried forward by the blood in the veins, is diffused through the system, and the brain of course receives its share of the excess. In this manner the *direct* stimulus to the brain of the increased temperature of the blood in general neutralizes more or less, and in some cases, I am confident, more than neutralizes the *indirect* sedative influence intended to be exerted by applying heat to the feet. It is obvious, therefore, that water only a few degrees above the temperature of the blood, is best adapted, when applied to the feet, to exercise by derivation an indirect sedative influence on the brain.

(To be continued.)

* See Sir William Fergusson's *System of Practical Surgery*, third edition, pp. 77-8. Speaking of heat and cold as agents for subduing inflammation, he wisely says,—"I could, in many instances, trust greatly to the feelings of a patient, and the seeming effects of the remedy otherwise, in persisting in the use of the one or the other."

ON THE INFLUENCE OF CLIMATE IN THE PREVENTION AND CURE OF CHRONIC TUBERCULAR PHTHISIS.

By EDWIN LEE, M.D., Etc.

[*Abstract of a Communication read and discussed at the Annual Meeting of the Scientific Congress of France, held at Aix, in Provence, and at Nice, in December*, 1866; *with additional observations on the subject.*]

(Continued from page 51.)

In my prize essay on the "Effect of Climate on Tuberculous Disease," I have endeavoured to show that climate acts most benefically by favouring the insensible cutaneous excretion, the partial or total suppression of which, from the continued operation of a humid atmosphere, I regard as a principal predisposing cause of the formation of tubercle in the lungs, and to promote this object by other than artificial means, regular exercise in the open air, regulated, of course, by the patient's amount of strength, is indispensable. There is, I think, no doubt that horse-exercise is beneficial in this way. Before the advantages of climate were appreciated in consumption, our highest medical anthority, Syndenham, was quite enthusiastic in his praises of this exercise as a remedial means. "I have put," he says, "very many upon this exercise, in order to the cure of consumption, and I can truly say I have missed the cure of very few, insomuch that I think how fatal soever this disease be above all others, and how common soever, yet it is in this way more certainly cured than most diseases of less moment, provided always that this travelling be long persisted in, according to the age of the patient and the length of the disease, and provided also, that he goes into new places; for the change of air and diet do as considerably add to the cure as the exercise itself."*

Horse exercise acts, as do also sea voyages, in the same way, in promoting the insensible perspiration, which, in this case, is further favoured by the muscular exertion it entails, by carrying the body more or less rapidly through the air, which comes to much the same as if the body were quiescent, and the air agitated—as is generally the case on

* Works printed for the Sydenham Society, vol. ii.

shipboard. The lungs themselves are but little affected by an agitated air, though the air-passages may be more or less so. "Air in motion," says Dr. Milne Edwards, in his work on the 'Influence of Physical Agents on Life,' "acts only on exposed surfaces, as the integuments of the body; those of the lungs are sheltered, and notwithstanding their communication with the atmosphere, the agitation of the air has but a slight share in the quantity of vapour which they furnish. This consideration will serve to determine the choice of suitable places for the residence of delicate persons. Those to whom the evaporation from the lungs is injurious, ought to prefer an atmosphere less dry, but slightly agitated, whence it is important to obtain an agreeable freshness.

"The slight agitation of the air when its hygrometrical state and temperature are adapted to the system, produces such a feeling of well-being, that the chest dilates in consequence, and admits a larger proportion of air. Persons who have delicate lungs, owe, in great degree, the difficulty and oppression which they feel, to the smallness of their apartment. This difficulty decreases on their going into a large room, or the open air."

The avoidance of a too monotonous mode of life, and the patients maintaining a cheerful tone of mind, are essential adjuvants to the action of climate in effecting an amelioration in all cases, more especially when pulmonary disease has been mainly induced by the operation of depressing mental influences, as not unfrequently happens. The consideration as to the resources for mental and bodily occupation or recreation possessed by places in which patients with pulmonary disease are recommended to sojourn during the inclement seasons of the year, is therefore a most important one, and yet it appears to have been overlooked by some writers who, relying upon meteorological data, speak highly of the climates of particular localities, as favourable ones for consumptive invalids, although destitute of similar resources, and even of tolerable accommodation.

The conclusions deducible from the preceding brief observations are, that the effects of climate in counteracting the causes most instrumental in the production and development of tubercular disease in the lungs should be estimated not merely with reference to the action of this agent upon the organs of respiration, but especially as respects its general influence on the system—a principal advantage which invalids derive from a winter's residence in a suitable southern locality being, that they are enabled to be much in the open air, which, by causing free expansion of the lungs, and a diminished susceptibility of the air-passages, by improving the functions of digestion, and especially by exciting those of the skin, through this means, and the influence of the sun's warmth, to greater activity than could be the case in persons who remain indoors or under a cloudy sky, as also by inducing a cheerful tone of mind through such influence, and by the variety of objects calculated to divert the attention from dwelling upon the state of health. It is in this way that climate conduces most effectually to prevent the occurrence of phthisis when threatened; to rectify, when existing, that abnormal condition of the blood which gives rise to the formation of tubercle; and to obviate, better than by any other means the lesions which are the natural consequence, when they have not been allowed to proceed too far.

The places most calculated to meet these indications in the majority of impending or existing chronic cases of pulmonary phthisis, as most frequently met with in northern constitutions, are, in my opinion, those which lie along the Mediterranean coast, from Hyerès to San Remo, including Cannes, Nice, and its immediate neighbourhood, and Menton, all of which, though possessing climatic characteristics in common, are yet sufficiently distinguished from each other by local peculiarities as to shelter, more or less freedom from certain winds, &c., as to make them adapted to meet the particular requirements in individual cases. They possess, moreover, the advantage of being at a moderate distance from each other, so that, as very commonly happens, when a change is advisable after a few weeks, or two or three months' sojourn, it can be made from one to another in most cases with but little risk or inconvenience. I need scarcely add that their nearness to England, and the superior accommodation now presented to visitors, are very important points in the estimation, not only of patients and their friends, but also of their medical advisers.

Many years ago, Laennec observed, in his "Traité de l'Auscultation Mediate," on the subject of climate—"Of all the means that have been had recourse to up to the present time, there is none that has been more frequently followed by the arrest or the cure of pulmonary phthisis than change of locality. The sea-shore, especially localities having a mild and temperate climate, are unquestionably the places where the greatest number of cures have been effected."

A distinguished living physician, after remarking that "the fact of recovery from phthisis, *even in its most advanced stage*, (?) can no longer be doubted," adds, "by carefully observing the operations of nature, learning her methods of cure, imitating it as closely as possible, avoiding what she points out to be injurious, and furnishing what she evidently requires, that we at length arrive at rational indications of treatment." The most important means are attention to the air breathed, that is climate, to exercise, and diet. Adverting to "that exhilarating feeling which the traveller experiences during early Spring in the South of France, and on the borders of the Mediterranean, caused by the clear atmosphere, balmy air, and luxuriant landscapes, this author proceeds to say—"He who has felt that delightful sensation, and paid attention to its influences on his own bodily powers, will not easily abandon the idea that such influence, if rightly directed to the relief of certain morbid conditions, must have some effect." *

The localities I have specified, as those to which I would give the preference in a large proportion of the cases of remediable phthisis may, in fact, be considered as supplying, in great measure, the requirements mentioned by Dr. Richardson in his work on the "Hygienic Treatment of Pulmonary Consumption" of an "hypothetical Atlantis for consumption"—viz., "It should be near the sea-coast, and sheltered from northerly winds; the soil should be dry, the drinking water pure, the mean temperature about 60, with a range of not more than 10 or 15 degrees on either side. Extremes of dryness and moisture are alike injurious. It is of importance in selecting a locality that the scenery should be enticing, so that the patient may be the more encouraged to spend his time out of doors in walking or riding exercise."

I have thus adduced various opinions of eminent men confirmatory of my own, as to the kind of climate most calculated to be beneficial to the majority of subjects predisposed to, or suffering from, pulmonary phthisis (in the early and middle stages). There are other places besides those I have referred to, possessing a climate of a somewhat similar character, in so far as sunshine, a generally cloudless sky, absence of rain to any extent in winter, a light dry atmosphere, are concerned, and these are doubtless not unsuited, as resorts for the season, to many of the above specified cases; but there are considerable drawbacks to their being frequented in any great degree—independently of their increased distance from England, and their inaccessibility unless by sea; one of the principal of which is, that each is far from any other health resort, and if, soon after the patient's arrival, the place is found not to agree, there is no remedy but to remain, and get on as best he may, or to undertake another long journey at an unfavourable time of the year; or the climate may be beneficial for a certain period, as two or

* The Pathology and Treatment of Pulmonary Consumption, by Dr. Hughes Bennett. Edinburgh, Second Edition. "Some years ago," says Dr. Bennett, "I succeeded in confining a consumptive patient to his own room for an entire winter. His spirits suffered greatly, but, on the whole, he supported the confinement with resolution. Next winter, however, nothing would induce him to remain at home, and one day he rushed out of the house, ascended Arthur's Seat, and was much better in consequence."

three months, after which, from its too great dryness and exciting quality, or, from other causes, its continuance may prove injurious, and a change may be advisable, when the same difficulty would occur; for, climate, like any therapeutical agent, requires to be regulated by doseing according to circumstances, as in the course of the six months winter and spring seasons, not only does the climate of every place undergo important changes, but the constitution of individuals, especially of pulmonary invalids, becomes materially modified by its influence, so that while many remain with advantage during the six months or longer in one place, there are others who cannot do so with impunity, and without experiencing an aggravation of the complaint, which was at first benefited. The same observation necessarily applies as well to a climate of a sedative as to one of an exciting and bracing character. Where the former is indicated by the nature of the case, a few weeks or a three months sojourn in the place will often produce the desired effect upon the system; whereas, by too greatly prolonging their sojourn, patients, in many cases, though not in all, become greatly depressed in general tone and spirits. Hence, patients should not generally be peremptorily advised to go to such or such a place for the winter, for the trial has always to be made as to how the locality chosen will agree.

Another drawback to the places distant from England to which I refer (as Upper Egypt, Algiers, the South-eastern coast of Spain, &c.), is that as the heat there sets in early in the year, and steadily increases, and as there is no intermediate climate accessible within a moderate distance, the contrast, as respects the state of the weather, cannot fail to be painfully experienced by, and subjects to the greatest risks, sensitive invalids, who have been basking for several months in sunshine, on their returning northwards on the approach of summer.

A third inconvenience as respects a winter sojourn in Egypt, especially on ascending the Nile, is the want of any suitable accommodation for invalids requiring attention, the comparative privation of walking exercise, and the confinement to the small boat. Indeed, the whole district is said, by a French physician, for several years resident at Alexandria, who has written a work on the climate of Egypt (Dr. Schnepp) to be prejudicial to consumptive patients, owing not only to the above-mentioned cases, but also to the extreme variations of temperature between the middle portion of the day and the mornings, and evenings on the Nile, to the strong wind which, setting in about the middle or end of March, blows up the course of the river, raising clouds of dust on its banks.

The place most frequented on the Spanish coast is Malaga (of which I have given an account in my work on the climates of Spain), the neighbourhood of which presents but little attractions for walking exercise, and where the accommodation is but indifferent, there being no lodgings or furnished houses to be hired, so that the winter visitors, consisting of invalids (several in a more or less advanced state of disease) and their friends, are for the most part congregated in three or four hotels; consequently, every serious aggravation of symptoms in any of the party, and every death that occurs must be known to the rest, and it need scarcely be said cannot fail to have a very depressing effect upon them.

I have hitherto been considering the cases to which a climate, characterised by moderate dryness of the atmosphere, and of a bracing and exciting kind is most applicable, but on the other hand, there are many to which such a climate would be positively injurious; where, from excitability of the system, inflammatory action in the lungs or air-passages, a tendency to active hemoptysis, or from extensive lesion, the disease being in an advanced stage, the attempt to improve the general state of the constitution must either be abandoned, or must be postponed to a more favourable period, should such arrive; and where consequently a warm sedative and moister atmosphere, but little agitated by winds, would present the greatest probability of advantage from the influence of climate. The most frequented as well as the most easily accessible place, possessing a climate of this kind is Pau. The climate of Biarritz on the Atlantic coast is of a more bracing character, but would not be suitable for many patients in spring, owing to the gales from the ocean at this period. From these, Arcachon, which has come more into notice of late years, is more sheltered, being situate on an inclosed basin of the Atlantic, and consisting, for the most part, of detached houses among pine woods. Visitors frequently migrate from one to the other of these places (which are described in my "Health Resorts of the South of France"), and there is also an accession in the spring of several of those who had been previously staying in the winter stations on the south-eastern coast of France, or visiting the chief cities of Italy.

To many cases of this kind several places of winter resort in England, though not possessing the same facilities for taking out-door exercise as foreign ones, would be well adapted, and, to not a few, would be more suitable than migration abroad.

Hospital Report.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

GALVANISM IN THE TREATMENT OF TUMOURS.

[Reported by Mr. BRADFORD.]

Mr. Collis for some months past has been trying various forms of galvanism in the treatment of tumours.

In December last he employed galvanism somewhat after the method advised by Dr. Althaus, but he has latterly made use of feebler currents, both as regards quantity and tension. The following observations are from his cases:—

James M'Cann, æt. 65, affected with the unusual form of primary encephaloid cancer of the groin.

December 11th, 1866.—Mr. Collis inserted a steel-pointed needle into the centre of the tumour, and connected it with the negative (zinc) pole of a twenty-four celled Daniell's battery. The circuit was completed by bringing the conductor from the positive (copper) pole into contact with the skin over the outer margin of the tumour, a wet sponge being interposed; a current was thus passed through a portion of the tumour. Some pain was experienced, by no means excessive; the current was kept up for ten minutes. Bubbles of gas (hydrogen) were seen to form round the needle, and some froth accumulated about it, which, when tested, gave an alkaline reaction (ammonia). At the end of ten minutes the needle was withdrawn, the froth and moisture wiped off, when a cavity was found to have been made in the tumour large enough to contain a cedar pencil; its margins were black and pulpy. The skin where the sponge lay was white, and looked like a part which was frost-bitten. Next day the cavity in the tumour was large enough to admit the little finger to the depth of an inch; the white spot was covered with a film of loosely adhering cuticle; on removing this film the skin underneath seemed natural. On many subsequent occasions this tumour was similarly treated, so that much of it was broken up; but, as in all cases of cancer, which are acted on by agents of power inadequate to their complete and immediate destruction, the disease extended circumferentially, at least as fast as it was broken up in the centre, and the man finally died of sudden hæmorrhage from the femoral artery. The use of the galvanism current became gradually more painful, even though it was reduced in strength to eighteen, twelve, and finally six cells; for some weeks before death it was given up as both painful and useless.

Mr. Collis seems to be of opinion that Dr. Althaus's method of electrolysis is applicable to nœvi and similar innocent growths, but that if electricity or galvanism is to be useful in the dispersion of tumours, it must

be applied on a different principle, and that instead of seeking directly to decompose them into their elements, we should use the galvanic current, so as if possible to modify their nutrition. By passing a galvanic current from the positive pole down a muscle, it can be restored in some cases of atrophy; this is seen in the wasting of the deltoid from injuries to the circumflex nerve. Here a steady galvanic current, if not too long carried on, will restore the muscle to its proper volume.

It seems not improbable that a current from the opposite pole might have an opposite effect on the nutrition of a part through which it is conducted. Mr. Collis mentioned a remarkable fact in connection with this view, namely—that when a plate of zinc and another of copper are placed upon the skin and connected together, an ulcer of extremely intractable nature will form under the zinc plate, if it be kept on the same spot for a couple of weeks—the reversing of the plates alone will heal it rapidly.

Mr. Collis tried various forms of battery, and finally selected a simple voltaic pile, composed of from twelve to sixteen pairs of zinc and copper plate one and a-half inch square, with intervening folds of felt. This battery was rendered sufficiently active, by being dipped in salt and water once a day, and tied up in a gutta-percha bag.

The following are a few of the cases in which this battery has been used :—

Donohue, æt. 60; secondary cancer in glands under the jaw.

Battery applied 16th May; a plate of copper in connection with the positive pole, was fastened by a piece of adhesive plaster to the back of the neck; a similar plate in connection with the negative pole was placed directly over the gland. This gland lay on the left side of the neck, and was the size of a large walnut. In three days this gland had almost disappeared; it was level with the surface, and could be felt with difficulty. The apparatus was removed; it began to grow next day, and in three days it was the size of a bean. The battery was again applied, and in three days he began to complain of pain; the skin was found to be moist and red, but the gland had entirely disappeared. He remained some time in the hospital to see if it would return, and to teach him how to keep the batteries to a similar gland on the right side of his neck. His business obliged him to leave the hospital before the cure was complete on that side.

Bridget M'Enroe, æt. 18; enormous glandular enlargement on the left side of the neck. Iodine in every form had been used internally and externally, but without effect. The strong iodide of mercury failed to check their growth. The girl looked very healthy, but was shockingly deformed by the tumour, which reached from the middle of the cheek to the clavicle, and from the chin far behind the ear.

June 24.—The battery was applied in a similar manner, with the exception that perforated zinc was used in place of copper over the tumour. A considerable reduction took place in a week, when the skin began to soften, and it was judged advisable to remove the battery for a few days.

Another battery of a different construction was made by Mr. Lyddon. It can scarcely be explained without a woodcut, but it combines lightness and a fair degree of permanence with sufficient power. The surface of the tumour was covered with a plate of silver-foil in connection with the negative pole. In the first twenty-four hours the growth diminished about one-fourth, and Mr. Collis confidently expects it to disappear in a few days.

In another case, a large and very hard tumour of the thigh, diminished an inch and a half in circumference in three days, on application of the battery, and Mr. Collis mentioned that he was using galvanism, with great benefit, in various other cases.

There is little doubt that early in the present century the use of galvanism in such cases was too lightly discarded, owing, in part, to ignorance of its nature, and in part to the miraculous powers expected from it. On failure of these expectations, it was laid aside without a sufficient endeavour to ascertain what it could do, and what modifications are required to render it efficient under circumstances which may widely differ from one another.

Examination Papers.

UNIVERSITY OF DUBLIN, TRINITY COLLEGE.

MEDICAL SCHOLARSHIP EXAMINATION.

TRINITY 1867.

Anatomy.—Professor M'Dowel.

1. The origin and intra-spinal relations of the spinal accessory nerve?

2. Describe a spinal nerve, its mode of origin, intra-spinal course, and general mode of distribution.

3. Enumerate the branches of the external carotid, dividing them into those given off (*a*) below and those given off (*b*) above the digastric muscle.

4. Give the nervous supply of the following muscles :—Trapezius, Serratus Magnus, Subscapularis, Pectoralis Minor, Teres Minor, Deltoid, Brachiæus Internus.

5. Define the position and extent of the cavity of the omentum, and mention the boundaries of the foramen of Winslow.

6. Trace from its origin the gastro-duodenalis artery, and its branches.

7. What parts would you remove in order to exhibit the deep muscles of the back of the leg? Mention the origins and relative positions of these muscles.

8. Enumerate the branches, and mention the muscular relations of the anterior tibial artery in its course down the leg.

9. Enumerate the bones with which the external cuneiform, second metatarsal and cuboid bones, respectively, are articulated.

10. The ligaments which are connected with the lower end of the fibula, and their several bony attachments.

Chemistry.—Dr. Apjohn.

1. A thermometer with moistened bulb in ordinary states of the atmosphere shows a temperature lower than that of the air; explain the cause of this, and why it does not continue to descend indefinitely.

2. When a plate of zinc and a plate of copper are immersed in an acid, and then inclined so as to make them touch, certain phenomena are witnessed; state what these are, and give a general rule for inferring the direction of the galvanic current.

3. Describe and explain the process of the British Pharmacopœia for preparing "acidum phosphoricum dilutum," and mention the tests which should be applied to the product for the purpose of ascertaining whether it does or does not contain pyrophosphoric or metaphosphoric acid.

4. Write the formula of oil of vitriol; explain its action on chloride of calcium; and give the tests for detecting in it nitric, arsenious, or arsenic acids, should such be present.

5. What is the composition of bone-earth, and how would you treat it so as to extract from it "calcis phosphas præcipitata."

6. Give the processes for the preparation of the arseniate and phosphate of iron of the British Pharmacopœia; mention also how these preparations may be distinguished from each other, and how the amount of iron present in each as protoxide may be determined volumetrically.

7. Detail and explain the different steps of the process for converting hydrocyanic acid into Prussian blue.

8. Give a succinct account of the process for preparing tartaric acid; write its formula, and mention the tests for distinguishing it from the oxalic and citric acids.

9. What are the integer numbers which represent approximately the ratio between the respective weights of fibrin, albumen, and globules in normal blood; state also the proximate principles which enter into the constitution of the globules, and how they may be separated from each other.

10. Hippuric acid, discovered by Liebig in human urine, is now viewed as a colligated acid ; explain how it is prepared from the urine of the cow, write its formula, and mention the proximate principles which enter into its constitution.

BOTANY—DR. DICKSON.

1. How are the tubers of the Potato or Jerusalem Artichoke to be distinguished from thickened roots ?
2. In what part of the exogenous stem does the liber or bast-layer occur ?
3. What constitutes the "stone" in a drupe ?
4. What is a lomentum ?
5. What is meant by the terms *monœcious* and *diœcious?*
6. By what means does the pollen-grain effect a communication with the ovule ?
7. How do plants purify the atmosphere from the effects of animal respiration, and what parts of the plant appear to be most active in this process ?
8. State the general character of the natural order Papaveraceæ as to *leaves, calyx, corolla, stamens, ovary,* and *fruit.*
9. How is the ovary of a Berberidaceous plant to be distinguished from that of a Papaveraceous one ?
10. State the natural order and sub-order of the plant before you, and the form of inflorescence here exhibited.

MATERIA MEDICA—DR. AQUILLA SMITH.

1. Give the official names of the plants which yield Aconitia, Atropia, Beberia, and Veratria, and the composition of "Unguentum Veratriæ."
2. State the exact composition of "Pulvis Jalapæ Compositus" and of "Pulvis Scammonii Compositus."
3. Give the botanical names and distinctive characters of the three kinds of Buchu in the Pharmacopœia.
4. Contrast the characters of carbonate of Soda and Carbonate of Potash, and give the tests for Potash.
5. Give the botanical names of the drugs derived from the Natural order "Euphorbiaceæ."
6. State the composition of "Confectio Terebinthinæ," and explain the principle on which it is made, in order to prevent the oil of turpentine from floating when the Confection is rubbed up with water.
7. What is the difference in the composition of "Pilula Aloes Barba densis" and "Pilula Aloes Socotrinæ"?
8. Name the five solvents which are employed in making the Tinctures in the Pharmacopœia, and give an example of each.
9. Describe "Catechu Pallidum." From what plant is it obtained ? and what preparation of it is in the Pharmacopœia?
10. How many grains of "Pilula Ferri Iodidi" are equivalent to one fluid drachm of "Syrupus Ferri Iodidi"?

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

ON Monday, the 15th instant, a deputation of this Association waited upon Sir Graham Montgomery, Bart., M.P. for Peebles, to urge upon him the injustice that the Scotch Reform Bill, in its present form, is likely to inflict upon the great majority of the Graduates of this University.

Sir Graham listened with great attention to the statements made, and appeared fully to understand the nature of the grievance complained of by the Association. He evidently took pains to master the details of the subject, and promised the deputation to bring the facts under the notice of the Lord Advocate, who has charge of the Bill.

As it is understood that the Scotch Reform Bill will not be proceeded with this year, the Association will have time to take measures for securing an alteration in the clause before its introduction next session. There is no doubt that the Graduates as a body are sensible of the slight offered them, and will bring all their influence to bear upon individual members of Parliament.

Among the speakers were Drs. Richardson, Rogers, Ballard, Sedgwick, Dudfield, Williams, Prosser James, Seaton, and Ray.

The following information, prepared for the Association, contains most of the facts alluded to by the speakers, and will, therefore, serve as an epitome of the representations made to Sir G. Montgomery:—

The proposed new Reform Bill for Scotland, which provides for the representation in Parliament of the Universities of Edinburgh and St. Andrews conjointly, will practically exclude from the franchise all Graduates of St. Andrews who obtained their degrees before January 1, 1863. This exclusion is based mainly on the assumption that these Graduates were not examined for their degrees, but obtained them by purchase. As such an impression, which by the medical world is at once recognized as entirely and wantonly false, has been widely disseminated, and has even been conveyed to members of the Government, the Council of the St. Andrews Medical Graduates' Association instructed us, at their meeting of the 28th ult., to collate and publish the facts bearing on the examination and status of the Medical Graduates of St. Andrews. In obedience to this instruction, we have prepared the following statement, based on official information.

The University of St. Andrews was one of the first to institute examinations for medical degrees, and has ever been foremost in adopting alterations to ensure the proficiency of its Graduates.

It is utterly untrue that the St. Andrews degree can be obtained by purchase. The Registrar of the University writes:—"There is no truth whatever that the degrees were got by purchase. During the war at the end of last century and beginning of the present, degrees were granted to candidates obtaining appointments in the army and navy, for instant duty, on certificates from three or four *eminent* London physicians, &c., and then often were rejected from the certificates being unsatisfactory."

The examination lasts three days ; it is partly written and partly *viva voce,* and is in every respect similar to the examination for Membership of the Royal College of Physicians of London.

The University of St. Andrews was almost the first to institute examinations at the bedside.

The Examiners are unbiassed, a certain number of them being invariably distinguished Graduates of other Universities, and all of them being unknown to the candidates.

The number of rejections is an evidence of the strictness of the examinational test. In 1858, when the question of representation in the Medical Council was being considered, the official returns of the University showed that the rejections numbered one in four ; a proportion higher than that of any other examining body, except the University of London ; and this, although nearly all the rejected candidates were at the time legally-qualified practitioners.

Another strong proof of the efficiency of the examination, and the clearest refutation of the objection that the St. Andrews M.D. is not fitted for the franchise, is afforded by the statistics presented for the last three years to the Medical Council by the chiefs of the Army and Navy Medical Departments, which show the qualifications of the gentlemen who were examined by the Boards prior to employment in the services. As all the candidates must have a qualification before offering themselves for examination, the ratio of rejections must be considered conclusive proof of the value of each degree. We wish to make no disparaging remarks on other examining bodies, but we are bound to draw the following comparison :—

32·52 per cent. of the Members of the Royal College of Surgeons,
18·18 per cent. of the Doctors of Medicine of Edinburgh, and only
8·33 per cent. of the Doctors of Medicine of St. Andrews,

failed to satisfy the authorities they were fit to be trusted with the lives and limbs of our soldiers and sailors.

If the severity of the examination tests in such a satisfactory manner the professional attainments of the Graduates in the earlier part of their career, the social and professional position to which many of them have afterwards attained, is an indorsement of the original approval. In London alone, thirty-seven Graduates of St. Andrews are attached to the Schools of Medicine, the Hospitals, and the larger Infirmaries ; they hold important posts in St. Bartholomew's, Guy's, St. George's, Westminster, London, Charing Cross, Bethlehem, St. Luke's, Royal Free, Consumption, Queen Charlotte's, Samaritan, Great Northern, Metropolitan Free, City of Lon-

don for Diseases of the Chest, West London, Soho-square for Women, and the French Hospitals, at the Royal Infirmary for Diseases of the Chest, and the Ear Infirmary, and at the Farringdon, Finsbury, City, Marylebone, Pimlico, and Islington Dispensaries.

Doctors of Medicine of St. Andrews are also to be found in connection with Queen's College, Birmingham, and Newcastle-on-Tyne College; with the Schools of Medicine at Edinburgh, Dublin, Liverpool, Leeds, Manchester, Sheffield and Hull; with the Hospitals at Belfast, Waterford, Glasgow, Inverness, Leith, Dundee, Lincoln, Derby, Carlisle, York, Stafford, Nottingham, Birkenhead, Brighton, Bradford, Bath, Leamington, Winchester, Cheltenham, Halifax, Bristol, Rochester, South Staffordshire, Worthing, Chorlton, Portsmouth, Chatham, Coventry, Worcester, and Glamorgan; and with the County Asylums of Middlesex, York, Cambridge, Derby, Lincoln, Sussex, Surrey, Stafford, Lancashire, and Cheshire. They also number in their ranks two Deputy Lieutenants, twelve Justices of the Peace, a Visitor in Lunacy, ten Coroners and Deputy Coroners, five Examiners in Medicine and six Officers of Health.

Two are Fellows of the Royal Society, ten are Fellows of the Royal College of Physicians of London, and fifty-five are Fellows of the Royal College of Surgeons of England.

BRITISH MEDICAL ASSOCIATION.

ANNUAL MEETING.

PROGRAMME OF PROCEEDINGS.

THE thirty-fifth Annual meeting of the British Medical Association will be held in Dublin, on Tuesday, Wednesday, Thursday, and Friday, the 6th, 7th, 8th, and 9th days of August next.

All the meetings will be held in the New Buildings, Trinity College.

There will be four separate Sections; viz., A. Medicine; B. Physiology; C. Surgery; D. Midwifery. Only two Sections will sit at the same time, unless there shall be great pressure of business.

The papers introducing the subjects for discussion on Scientific and State Medicine, shall not exceed *thirty* minutes. Papers on any other subject shall not exceed *twenty* minutes. All subsequent speakers not to exceed *ten* minutes.

TUESDAY, *August 6th*, 1867.

10 A.M. Meeting of Committee of Council.
11 „ Meeting of General Council.
1 P.M Adjourn for Luncheon.
2 „ First General Meeting.—The retiring President, Dr. Waters will resign his office.—The new President, Professor STOKES, M.D., will deliver his Inaugural address.—The Council report will be read, and discussion taken thereon.—Election of General Secretary.—Report of Charter Subcommittee.—Report of Medical Benevolent Fund.—Appointment of Place of Meeting in 1868, and President-Elect.
9 P.M. *Soirée* at the Obstetrical Society.

WEDNESDAY, *August 7th*.

8·30 A.M. Public Breakfast at the Exhibition Building.
9·30 „ Committee on the observation and Registration of Disease.
10 A.M. Meeting of new General Council.
11 „ Second General Meeting—Address in Medicine by Sir D. CORRIGAN, Bart—Sectional Meetings.
2 P.M. Adjourn for Luncheon.
8 „ Third General Meeting.—Mr. RUMSEY will introduce the subject of State Medicine for discussion.—Sectional Meetings.
6 P.M. Adjourn.
9 „ The President's *Soirée* at the King and Queen's College of Physicians.

THURSDAY, *August 8th*.

10 A.M. Fourth General Meeting.—Address in Surgery by Professor R. W. SMITH.—Sectional Meetings.
2 P.M. Adjourn for Luncheon
8 „ Fifth General Meeting.—Professor HUGHES BENNETT, M.D., will introduce for discussion the Effects of Mercury—Sectional Meetings.
6 P.M. Adjourn,
7 „ Public Dinner at the Exhibition Building. Tickets £1 1.

FRIDAY, *August 9th*.

10 A.M. Sixth General Meeting.—Sectional Meetings.
2 P.M. Adjourn for Luncheon.
3 „ Seventh General Meeting.—Sectional Meetings.
9 „ *Soirée* at the Royal College of Surgeons.

SATURDAY, *August 10th*.—Excursions.

Papers have been promised by

Dr. HENRY BENNET—Treatment of Pulmonary Consumption.

Dr. MCCALL ANDERSON—On a case of Ephidrosis Cruenta or Bloody Sweet; with Remarks.

Dr. LORY MARSH—On Idiopathic Abscess of the Brain.

Dr. GEORGE BUCHANAN—On the Treatment of Elephantiasis by Ligature of the Main Artery of the Limb; with a Case in which cure was effected by Ligature of the External Iliac Artery.

Dr. S. GORDON—On Cerebro-Spinal Fever.

HENRY THOMPSON, Esq.—Considerations suggested by the Study of One Hundred Cases of Stone in the Bladder of the Adult, recently operated on.

Dr. W. PIRRIE—On Acupressure.

Dr. C. FLEMING—On the Surgical Pathology of the Urine.

Dr. F. R. CRUISE—On the Endoscope.

J. TUFNELL, Esq.—On Stricture of the Rectum.

H. LEE, Esq.—Modern Views on the Pathology and Treatment of Syphilis.

Dr. KIRKPATRICK—Treatment of diseased Joints by Escharotics.

Dr. RAWDON MACNAMARA—Ligature of the Femoral Artery according to the Plan of the late Professor Porter.

Dr. HINGSTON (Montreal)—An Operation for the Relief of Deformity from Disease of the Hip-joint.

Dr. F. CHURCHILL—Granular Endometritis.

Dr. ALTHAUS—Electrolysis of Tumours.

Dr. GREENHALGH—Cæsarean Section.

Dr. HAYDEN—Diagnosis of Functional Cardiac Murmurs.

Dr. DENHAM—The Use of Ergot of Rye.

Dr. O'LEARY—Animal heat.

Sir J. Y. SIMPSON—The Cephalotribe.

Dr. RINGLAND—Cases illustrating the Use of the Cephalotribe.

Dr. MCCLINTOCK—The Spontaneous Elimination of Fibrous Tumours of the Uterus.

GEORGE SOUTHAM, Esq.—Three Cases of Spontaneous Fracture of Urinary Calculi in the Bladder.

Dr. AVELING—Pelvi-Uterine Mensuration, by means of combined sounds.

Dr. ASHE—Suggestions for the Improvement of the Medical Profession.

Dr. MAPOTHER—The Topography of Cholera.

Dr. MAPOTHER—Treatment of Aneurism; Advantages of completely arresting the Current through the Sac.

P. C. LITTLE, Esq.—Experience of Cholera during the late Epidemic; with cases.

Dr. HALTON—Cases in Practical Medicine.

Dr. M'GREEVY—Remarks on the Nature, Symptoms, and Treatment of Cholera.

Dr. HENRY KENNEDY—Are the Types of Fever Limited?

Dr. G. PATON—Researches on the Action of the Heart.

Dr. LEARED—On the Successful Use of Arsenic in Certain Painful Affections of the Stomach.

J. Z. LAURENCE, Esq.—A Case of Traumatic Aneurism of the Orbit, in which the Common Carotid Artery was successfully Tied.

J. Z. LAURENCE, Esq.—Further Experience on Removal of the Lacrymal Gland as a Radical Cure of Lacrymal Disease.

Dr. H. COLLIS—The Treatment of Tumours by Electricity.

Dr. MACKINDER—On Fistula in Ano.

Dr. SHINKWIN—On Hydrophobia; its History, Pathology, and Treatment.

Dr. BRAXTON HICKS—To exhibit a Cephalotribe, with Remarks.

Dr. KIDD—To exhibit a Cephalotribe; with Remarks.

Dr. DALDY—On Hysteria treated by Strychnia.

ELECTION OF M. WURTZ.—At a meeting of the French Academy on the 15th inst., M. Wurtz was elected to the place lately vacated by M. Pelouze in the Section of Chemistry.

Review.

THE HALF-YEARLY ABSTRACT OF THE MEDICAL SCIENCES, &c. Vol. XLV., January—June, 1867. London: Churchill.

THIS most useful book, of old known to the Profession by the name of "Ranking's Abstract," also furnishes evidence of the influence and value attached to the papers of many of our best known contributors, whose labours are marked out in an honourable manner in its pages. In the current number we find abstracts from the following papers, which originally appeared in our columns :—

Ward, Montgomery Albert, M.B.—A case in which Typhus and Pythogenic Fever co-existed, complicated with Pleuro-Pneumonia.—13th February, 1867.

Lane, Alex., M.D.—Cholera.—20th March, 1867.

Moore, Wm., M.D.—Hepatic Abscess, simulating Abdominal Aneurism.—23rd January, 1867.

Sandham, Mr. W. H.—Cases of Intestinal Obstruction; illustrating the value of Opium as a remedy.—16th January, 1867.

Belcher, T. W., M.D.—Psoriasis.—6th February, 1867.

Drysdale, Dr.—Tinea Decalvans.—10th April, 1867.

Tyrrell, Mr. H. J.—On the Treatment of Delirium Tremens by Indian Hemp.—13th March, 1867.

Croly, Mr. H. G.—Acute Glossitis.—6th February, 1867.

Hinton, Mr. J.—On the present Methods of Diagnosis in Aural Surgery.—15th May, 1867.

Pollock, Mr.—Enlarged Scrofulous Glands, displacing the Aorta and Innominate Arteries.—22nd May, 1867.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 24, 1867.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

WE have urged, temperately and respectfully we trust, but still deliberately, that it is an act of injustice on the part of those who sway the Councils of the London College of Physicians, to allow many of the senior Members to remain, year after year, in a position of implied inferiority. Such an imputation can, by no means, surprise some of the elder Fellows of the College, for if our memory serve us correctly, in the year 1833, long and ill-suppressed feelings of vexation, compelled many of the then Licentiates to appeal to both Houses of the Legislature.

The College may affect to ignore this fact, as they certainly seem to have forgotten the admonition then received from Lord Chief-Justice MANSFIELD, to amend their bye-laws.

If discontent were manifested so unmistakably at this period at the dealings of the College (then tight-laced by prestige and routine), how much more loudly should the watch-word of *Reform* resound to-day.

During the year 1859 (of grace so called, though some might demur to the term), the College admitted many hundred Graduates of almost any and every University, on payment of a small fee, and without any form of examination whatever. So far —so well. We rest upon this step, not as one in any sense disparaging to the Graduates so admitted, but to signalise it as a great transition era in the history of the College, one in striking contrast to all its traditions, and to all its prior practice; many had thought great changes were at hand, its very Hall seemed redolent of Liberality and Progress. Alas! for human inconstancy. Collegiate Liberality seemed exhausted in this act with, even yet, faint signs of animation, while the Members suffered from the well-known ill that waits on "hope deferred."

At such a crisis, under such an innovation, it would probably have been considered a just act—certainly a graceful one—on the part of the College, to have given a step in promotion to the majority of its original Licentiates, who had both paid a large fee and undergone a long examination. Many of these were men of unquestioned loyalty, proud of their connection with the College, jealous of its reputation, trusting in its justice, and ever inspired with the belief that an honourable career would, in the fulness of time, have earned the reward of the Fellowship. But, mark the result! Not only have these men been required to alter their former title of "Licentiate," and to be incorporated with the present huge list of "Members," but they have been annually neglected, their former status ignored, while the Fellowship has been frequently bestowed upon Members admitted during the year of grace, and, subsequently, without any such claim to priority, in many cases, as would satisfy the Profession generally, who cannot be supposed devoid of a very direct interest in the proceedings of an Institution which *ought* to rank as the acknowledged head of scientific Medicine in this Metropolis.

It is our duty, as Medical Journalists, to point out unreservedly all such backslidings as tend to mar efficiency, and lead to a totally false estimate of the Professional value of the Fellowship of the Royal College of Physicians. But we stem so ungenial a current of reflection, and gladly turn towards a safer resting-place.

We only find safe anchorage amid the Liberal section of the Fellows. Around them alone our latest hopes now cluster. May men whose talent sheds the *true* lustre on the body to which they belong (beside which all empty exclusiveness effectually pales), by their future government, free their College from the reproach of partiality and injustice!

THE BRITISH MEDICAL ASSOCIATION IN DUBLIN.

In another column our readers will find the authorized programme of this Medical Congress.

We shall use every exertion to provide the Profession with a report of the proceedings as they occur, and we intend in due course to make editorial remarks on the meeting and its results to our Profession in Ireland. We may just now advert to a few points which are not contained in the published programme.

The Public Dinner will occur on the bi-centenary of the College of Physicians of Ireland, who, on the 8th of August, 1667, obtained their first charter of incorporation from King CHARLES II., having for thirteen years before that time existed as a collegiate body in the University of Dublin (as the School of Physic practically is at present), under the name of Trinity Hall, the memory and foundation of which, and of the Irish College of Physicians, are inseparably connected with the name of Dr. STEARNE, a practising Physician in Dublin, and a Senior Fellow of Trinity College, who was the "*fons et origo*" of both institutions.

The Excursions on Saturday, the 10th August, are well arranged; and we are informed that one of them—that to the River Boyne and its historic neighbourhood—will be conducted under the able and peculiarly suitable leadership of Sir WILLIAM WILDE, who wrote years ago on "the Beauties of the Boyne and the Blackwater."

Lastly, the Senate of the University of Dublin intend to confer honorary degrees on some members of the Association; and it is considered probable that the College of Physicians of Ireland will confer an analogous distinction—their Honorary Fellowship—on others.

LEAVE OF ABSENCE TO DISPENSARY MEDICAL OFFICERS.

WHEN DANIEL O'CONNELL said that Corporations have no consciences, he uttered a truism which all experience before and since his time has endorsed and confirmed.

This is now and again seen to be particularly the case with Boards of Guardians, or rather with the ignorant majority of many of them. Cases there are, indeed—"*rari nantes in grugite vasto*"—where an unwonted liberality to our Profession shines forth among a motley assemblage of Poor-law Guardians of all sorts and conditions of men; but this generally arises, not from an unanimous conviction of the justice and good policy of the thing, but from the strong influence exercised over his brother guardians by some Poor-law Guardian who has both the will and the power to do, and make others do, what is right towards the hard-worked Medical Officer.

In another column we give our readers extracts from the *Irish Times* and *Express* newspapers respecting the hard usage meted out to Dr. WHISTLER, of Bray, by the Rathdown Guardians. Dr. WHISTLER gets ill in their service, and gets leave of absence because of his illness. He is, however, told by the ignorant and narrow-minded majority whom he has the misfortune to serve, that he must pay his deputy himself; and this notwithstanding the express recommendation of his own Dispensary Committee to the contrary, and the certificates of Drs. STOKES, HUDSON, and M'DOWELL, as to the urgent necessity for his obtaining sick leave. There is no use in arguing about the monstrous injustice and the miserable cruelty of this conduct. Every one can see that it is a wretched attempt to pay off Dr. WHISTLER for his success in the recent case of DEASE *v.* WHISTLER, wherein he taught some of these Bray Guardians to mind their own business, and not meddle with his professional character. This resolution of the Rathdown Guardians will and must be looked on by an indignant public as a mere personal squabble of the most pettifogging description, arising out of the above-mentioned law-suit, and will be met accordingly.

Questions of this kind should be settled on the merits, and not on any personal grounds. The hitherto invariable usage—that when a public officer gets ill because of his public duties, his deputy should be paid by the public—should be decided to be a definite rule by the Poor-law Commissioners, to whose sense of justice we leave the case. We believe they have the power to *compel* recalcitrant Guardians to act fairly towards their salaried officers; and we have little doubt of the result in this case.

In point of fact, it appears to us that Dr. WHISTLER committed an error in asking permission, when the explicit regulations conferred the remission of his duties as a right. The Rules provide that a Medical man who, from illness, may be incapacitated from continuing to carry out his duties, must notify the fact to his Committee, and suggest some one to act as his *locum tenens*. Having done this, the Guardians must either accept the suggestion and, if necessary, pay the substitute, or leave the position vacant. They have *no power whatever* to curtail the salary of the sick Doctor.

A great principle is involved in the issue, and we are quite satisfied that the Commissioners will consider the question without the remotest reference to the celebrated cause of DEASE *v.* WHISTLER, and the verdict of the jury in that case.

REAPPEARANCE OF TRICHINIASIS IN GERMANY.—It was supposed that trichiniasis had quite disappeared from Germany, but cases have again been observed at Halberstadt. Several inhabitants have suffered, and among them were children three years of age. The police had to protect the butcher who had sold the trichinosed pork.

Notes on Current Topics.

THE QUEEN'S HEALTH.—It would seem that the oracular announcement made by the *Lancet* last week, to the effect that her Majesty the Queen suffers habitually from "restless nights, most distressing sick headache, and great exhaustion," demands some more tangible corroboration than the indefinite would-be-official phraseology in which it is couched. The inquiries which we have made have not enabled us to ascertain that there are any reliable grounds for this very alarming statement, and we are earnestly anxious that the *Lancet* should either favour the expectant public with some of the further details which are supposed to have been exclusively communicated to it, or should verify the mysterious whispers of which it claims to be the favoured depository with an authenticity somewhat more real than its very indefinite forewarnings indicate. On such a subject as the health of the Sovereign, perhaps the public MAY be excused for doubting the uncorroborated foreshadowings of the *Lancet*.

THE BRITISH MEDICAL ASSOCIATION.—The notice paper for the approaching meeting of the Association at Dublin contains two motions which are likely to give rise to an animated debate. Dr. J. Seaton will move—To substitute for Law 1, "That the Association shall be called 'The Medical Association of Great Britain and Ireland,' or 'The Medical Association of the United Kingdom of Great Britain and Ireland.'" We hope to receive, from the statement of Dr. Seaton in regard to the foregoing resolution, some enlightenment as to the grounds for its adoption. We shall be curious to learn in what respect the British Medical Association would claim to represent the profession in Ireland? If as a peripatetic, scientific congress, for encouraging the progress of medicine and surgery, well and good; if as a medico-political body, we venture to suggest that the annexation of Ireland can be nothing but respect of an empty name. Neither in social status, in the objects which it has in view, or the means in which it proposes to carry them out, can the present organisation of the Association serve the purpose of any but a small minority of the profession in Ireland. The Rev. Dr. Bell will move—"That it is inexpedient to make such extensive changes in the form and conduct of the JOURNAL, as have just been made, without the consent of the members assembled at an annual meeting." Dr. Bell will also ask this question—"Why are the subscriptions of members directed to be paid to the Secretary and not to the Treasurer?" and will ask leave to move a resolution, if he think the reply requires that he should do so. The Profit and Loss Account of the Association, never indeed a very pleasant point of view of the annual proceedings of the Association, may this year furnish the Rev. Dr. Bell with some forcible arguments. If, however, the operations of the conductors of the Journal should present a good monetary result, the resolution will, we think, meet with little support. We have always considered the publication of a journal as a perversion of funds which might have been employed with infinitely greater advantage to the Profession and the Association, but we are bound to say, nevertheless, that the present administration has hitherto evinced an unwonted vigour which, if it be financially successful, fully authorises the action which may have been taken.

THE RICHARDSON TESTIMONIAL.—The Society for the Prevention of Cruelty to Animals, has voted £25 to be added to this fund, or to be used in any other manner that may be thought preferable, as a testimony to Dr. Richardson's services in bringing into general use his method of inducing local anæsthesia, which is as applicable in veterinary as in human practice.

COLNEY-HATCH ASYLUM.—There were on the books of this asylum at the close of last year, 823 men and 1215 women. The establishment is capable of holding 830 of the former and 1225 of the latter. The mortality of the patients treated at Colney-Hatch is eleven per cent. The chief causes of death are consumption and general paralysis. No epidemic has lately prevailed. Patients from districts suffering from cholera were usually refused admittance. The Commissioners in Lunacy recommend several improvements, and state that steps should be taken immediately to provide further accommodation for the pauper lunatics of the County of Middlesex. The Commissioners also report that the Medical Staff is insufficient. There are only two Medical Superintendents and two Assistant Medical Officers, in charge of these 2038 patients. We have often inveighed against the impropriety of overworking medical men in this manner, and would once more urge the iniquity of thus setting the Superintendents to do impossibilities. The least thing that goes wrong at once causes an outcry against the doctors; but what reasonable man would expect any one Medical Superintendent to have an eye, day and night, upon every act of a thousand lunatics?

ORPHAN ASYLUMS.—In the course of a capital speech at the opening of the Alexandra Orphanage, Lord Granville drew attention to the evils that accompany the mode of election to these charities. It is, indeed, a discredit that the orphans who are fortunate enough to be admitted are not the most needy, but those who have secured the support of the most active busybodies. It is a case parallel to that of election of Medical Officers to our hospitals. It is easy enough to point out the folly of the existing modes of election, but by no means so easy to devise a good system. The difficulty of doing so is, in fact, the only reason why the present absurd methods have not long since been swept away. There are vacancies now in London, the candidates for which, we have reason to know, are fully sensible of the folly of appealing to a set of people who cannot be any judges, and who would gladly hail some just method of considering their claims, and avoid the exhibition of a contest.

BROMIDE OF POTASSIUM.—Some experiments on animals have lately been made with this drug. According to Eulenburg and Guttmann from thirty to forty grains administered to dogs by subcutaneous injection, produce cardiac disturbance, together with diminution of sensation and voluntary motion. In a period varying from ten to thirty minutes this state ended in complete paralysis of the heart. This mode of death was constant in a large number of animals, and the results must, therefore, be looked upon as of considerable importance. The bromide is now, by some practitioners, so constantly—we had almost written indiscriminately—prescribed, that there ought to be no difficulty in corroborating or refuting these statements as to its properties. Yet the action of drugs seems almost a for-

gotten subject of investigation. It is strange that while thousands of our brethren are daily prescribing drugs so few really reliable contributions should be made to our knowledge of their properties.

TOBACCO.—In a paper lately read before the Medico-Chirurgical Society of London, Mr. Hutchinson expresses an opinion that the abuse of tobacco by smoking, gives rise to a considerable amount of nervous disease of the eye. In France the same habit has lately been denounced as the origin of mental diseases and various nervous disturbances.

THE FOLLIES OF FASHION.—The last freak of fashion is to give the *coup de grace* to the pearl-powder, white-lead, and rouge that have so long reigned. Even belladonna is to be discarded, and "golden" hair will shortly be as rare as the real auburn tint of nature, if not still rarer. The decree has gone forth for black hair and bronze complexions, and these will, no doubt, shortly crowd the parks. How they are produced is the only question that need concern us. The destructive nature of the chemical agents usually employed for dying the hair black is well-known to our readers. To give a lady of fashion the complexion of a gipsy, nothing is needed but a little walnut-juice, and we have reason to know that this has already found its way to the toilet-table. It has at least the negative merit of not being so dangerous as some of the poisonous cosmetics that have preceded it. Whether a dirty face will long be the rage, it would be rash to predict.

RELATIVE MORTALITY OF BACHELORS AND MARRIED MEN.

THIS subject, which was started some time ago by the Scotch Registrar-General, and has more than once appeared in our columns, is again alluded to in the Annual Report of that functionary just issued. The subject is one that can scarcely be otherwise than interesting, even to those who take but little pleasure in the study of statistics. Moreover, it is one likely to cause great diversity of opinion amongst superficial thinkers, and is sure to point many a sally against the power of statistics to prove anything.

Let us hear then, first of all, the conclusions of the Registrar-General for Scotland. He says that :—

"Carefully ascertained facts applicable to the whole male population of Scotland who are above 20 years of age, and for a period of two years, seem to prove that the married state is the condition of life best fitted for mankind, and that, at every successive stage of life, married men die at a much lower rate than unmarried men of the same ages. It seems impossible, therefore, to avoid drawing the conclusion, that it is to marriage, and the more regular domestic habits which attend that state, that this result is attributable. Were this conclusion based on small numbers, or on the statistics of a particular class, or on the comparison of the mortality of married or unmarried men during the earlier years of life (as below 40 years of age), doubts might rest on the conclusions deduced. But whether the explanation attempted to be given be satisfactory or the reverse, the fact itself must remain unchallenged, that at every successive stage of life, up even to extreme old age, married men die in a much lower ratio than those who are unmarried. It is a known fact, that at the earlier ages, say from 18 to 40 years, among the unmarried are a considerable number of men who, from natural infirmity, delicacy of constitution, the existence of chronic disease, bad health, or from being addicted to dissipated and licentious habits, or by want of success in life, do not marry. The annual mortality among such men is annually greater than among the strong and vigorous bachelors ; and this greater mortality among such unmarried men to some extent swells the proportional deaths of the unmarried at these early ages, as compared with those of the same age who are married. But almost all such die out, by the course of nature before they have attained their fortieth year—none survive their fiftieth year. But the tables for the two years prove that at every successive year of life, from 50 to extreme old age, the married men continue to die at a much lower ratio than the unmarried who were of the corresponding ages. Thus, even at the great age of 70 to 75 years, in every thousand married men only 81 died, but in every thousand unmarried men at the same ages 102 died annually. No arguments can explain away this ascertained fact. And as the sole difference in the two parties at every age above 50 years of age is that the one is married and that the other is unmarried, it seems impossible to resist the conclusion that it is marriage, and the habits connected with marriage, which is the cause of the difference. Strange it is that it is only now, after the lapse of several thousands of years, that statistics have proved the truth of one of the first natural laws revealed to man—'It is not good that the man should live alone.' The above conclusion relative to the much smaller death-rate of the married men is strikingly confirmed by calculating the mean age at death of the married and unmarried men above 20 years of age. From the facts published in Table XVIII. of the Ninth Detailed Annual Report, it was ascertained that the mean age at death of the married men was 59·7 years, whereas the mean age at death of the uumarried men above 20 years of age was only 40 years—giving a difference of 19½ years in favour of the married men. Calculating the mean age at death in the same manner for the year 1864, it appears from the facts stated in Table XXX., that the mean age at death of the married men was 59·1 years, whereas that of the unmarried men who were above 20 years of age was 40·2 years—showing a difference of 19 years of life in favour of married men."

The mode in which these conclusions are worked out is worth consideration. In the present article we can, however, only give a few of the figures, by way of example. Above the age of 85 the numbers are too few to yield any result that could command confidence on almost any subject. The other extreme of youth must also be omitted, so that no calculations have been attempted for persons under 20. We think, however, that even from 20 to 85 includes rather too many people for a just investigation of this subject. We will, nevertheless, give a few of the results obtained, since, from some cause or other, it would appear that there has been in Scotland a larger mortality of bachelors than married men, during each quinquennial period from 20 to 85. Thus, we learn from this authority, that between the ages of 20 and 25 years, in every thousand married men only 6·26 died annually, but in every thousand unmarried men at the same ages, 15·01 died. From 25 to 30 years of age, only 8·23 per thousand died annually in married men, but 14·94 per thousand unmarried. From 30 to 35 years of age, only 8·65 died in every thousand married men, but 15·94 in every thousand unmarried. From 45 to 50 years of age, in every thousand of each class, only 17·04 married, but 21·18 unmarried died annually. In every thousand of each class from 50 to 55 years of age, 19·54 married men died annually, but 26·34 unmarried. In every thousand of each class from 60 to 65 years of age, 35·63 married men died annually, but 44·54 unmarried men. In every thousand of each class from 70 to 75 years of age, 81·56 married men died annually, but 102·17 unmarried men. Between the age of 80 and 85 years, the annual mortality of the bachelors was 195·40 per thousand, while that of married men was only 173·88.

Nor do these figures represent one exceptional year, since they are in fact the mean of the years 1863 and 1864. It may be that the succeeding years may not yield the same results, and that some particular cause at work during that period may yet be seen. It is quite possible that, after all, the figures should be the consequence, not of marriage, but of some other unrecognized agency. We do not propose on this occasion to inquire into the possibility of this, but only to signalise the interesting social question suggested by these registration returns. There can be little doubt that statisticans, in all parts of the kingdom, will sift the figures in every possible manner.

DURING the half year ending June 30th, 219 women were delivered in the City of London Lying-in-Hospital.

THE LATE SIR WILLIAM LAWRENCE, BART., F.R.S.

IMMEDIATELY upon the decease of the venerable Sergeant-Surgeon to the Queen, we gave a brief notice of his life in which the motto *de mortuis nihil nisi bonum* was evidently acted upon. It could be of no possible interest to our readers to re-open a controversy long since exhausted, nor was it necessary for a journal that had so long consistently opposed Lawrence during his public career, to carry on a personal warfare after his decease. It seemed to us preferable to do him the honour due to his undoubted genius, and turn the force of our arguments against those opponents who survive, and may, therefore, reply or be convinced. It would have been difficult for us to write a full life of him without sad references, and some of these disputed points played so important a part in his career, that in such a case they must have been alluded to. But, fortunately, this less genial part of our task had already been done. A long consistent course has characterised this journal, and everything that need have been said, had been repeated over and over again, so long as any hope of doing good by the repetition existed. We had therefore only to sum up the later events of Sir William's career, and turn to other subjects.

On the same day as that on which we published our brief obituary paragraph, there appeared in the *Times* a notice of the deceased baronet, which has given rise to a somewhat unusual controversy in the columns of that journal. The writer of the notice having mentioned the discussion that arose on the publication of Lawrence's Lectures on "Zoology, and the Natural History of Man," and his promise to suppress the book, went on to say, that "he kept his word, so far as withdrawing the obnoxious works from circulation in this country, but sold the entire edition to the notorious Carlile, of Fleet-street, a publisher of seditious and blasphemous works, by whom the books were sent to America."

Upon this Sir Trevor Lawrence, the present baronet, the son in the medical profession to whom we alluded the other week, wrote to the *Times* denying the accuracy of the statement, explaining that Carlile's edition was in reality pirated, and that his late father had, in fact, unsuccessfully taken legal proceedings to prevent its sale. The "writer of the notice" in the *Times* at once replied, saying that "the sale to Carlile took place before Sir T. Lawrence was born, and that consequently his knowledge of the transaction must be very imperfect." He then asserts that he "made the statement on the authority of Mr. Carlile, communicated shortly before his death," and adds that it was "repeated in company by the late Dr. Lynch." The writer draws attention further, to the fact that similar statements have long since been in circulation, and have remained unchallenged, giving references, and then specially observing that "perhaps the best notices appeared in the MEDICAL CIRCULAR of March 1854," which he recommends those interested in the subject to peruse. Of course so flattering a testimony from a writer in the *Times* at once creates a desire in the minds of hundreds to see the articles alluded to. They were published years before the amalgamation of the MEDICAL CIRCULAR with the MEDICAL PRESS; were three in number, and constituted a complete biographical sketch of Lawrence up to that date. As they cannot fail to be deeply interesting, and as the numbers for March 15th, 22nd, and 29th, 1854, in which they appeared, are now out of print, we reprint the principal passages in this week's MEDICAL PRESS AND CIRCULAR.

We must premise, however, that Sir Trevor has repeated his contradiction of the statements in the *Times* "on the unimpeachable authority of his father's private memoranda, which show conclusively that the bulk of the suppressed works remained in his possession long after the publication of Carlile's pirated edition." He mentions also that, to his own knowledge, a considerable number of copies remained in his father's possession as late as 1855.

The writer in the *Times* nevertheless wrote on the 18th inst., refusing to retract any of the assertions. It is not our object to enter into this controversy. The republication of the prior article in this number is undertaken with no wish to reiterate its sentiments, nor should we desire at this date even to endorse everything it may contain.

Lawrence! This word is the mystic *Omh* of the profession's faith. What does it portend? Its inner meaning, its outer influence, what are they? Is it divine or factitious, a type of the true, or an emblem of the false, the transitory, and the conventional? The word is a charade: each half has its own meaning, and the whole makes a character contradicting its two halves. Who can understand it?

A duplex character is often misapprehended; and is at one time the sport of faction, at another the sacrament of idolators. Abused yesterday and eulogised to-day, the world grows sceptical of its virtue, and regards abuse and eulogy with equal mistrust. A writer who had caught his inspiration from the *Lancet* might speak of the great surgeon somewhat in the fashion a believer would denounce a heretic, and might describe him in terms such as we will now attempt to translate into the more polite language of our own vocabulary.

Lawrence in youth, the free-thinking, the bold, the defiant, the render of musty parchments, the denouncer of old abuses, the sneerer at ancient reverence, the crusader fighting without a creed bearing a cross to the walls of Jerusalem, scaling them alone, and then sitting down with the muftis under the shade of the crescent's golden folds. Lawrence in later life, the discreet, the conformable and reserved, the admirer of everything past except his own career, the sustainer of law, to whom all change is destruction, all novelty anathema, who rolls himself up comfortably in the mantle of his own esteem, and warms himself at the flames of sycophancy and adulation; who, sooner than consent to wise council and popular will, stands like Sardanapalus upon a pyre of mildewed charters, and waits for the torch to be applied, that he and they may be consumed in one heap. Yet, we doubt that he aspires to the glory of martyrdom. See him, he mounts the faggots, arranges his robe gracefully, addresses the spectators with an eloquence, by turns tender, taunting, and sublime; but the smoke ascends; all hearts are anxiously waiting the glorious consummation, and Lawrence like a mock hero, escapes down the back steps and is off by the wings, laughing in his sleeve at the dexterity with which he has humbugged the innocents.

However various, Lawrence is, nevertheless, Lawrence still. The poles of his character have one centre—self. Like a heathen idol he has many faces, a man's, an eagle's, a serpent's a cat's, but they are all hewn out of one block. On one side he is the type of energy, on another of discretion, on a third of prescience, on a fourth of cunning; but as the idol is a god, so is Lawrence a philosopher.

Had Lawrence not been a philosopher, the worship offered to him would long since have ceased. A man who has openly defied consistency, and treated public opinion—the oracle of our day—with as much contempt as Demosthenes the oracle of his, cannot retain either popular or private respect unless there be something in him to which the mind of others is constrained to bow, even while it demurs to the humiliation. Lawrence has intellect—an intellect, cold, hard, strong as steel, yet glittering on the surface like steel when the light plays upon it—an intellect that reigns tyrannically in its little court, strangles with an iron grip the impulse that comes unbid, smiles ironically at the emotions that rise lovingly in the heart, makes a wide waste around its throne, and rejoicing in its strength points at desolation as the symbol of its dominion. Such *might* be the *Lancet's* sketch—now to our own.

William Lawrence was born at Cirencester, in Gloucestershire, in July, 1783, where his father practised as a surgeon for very many years. Having received the usual preliminary education in his native town, he was sent by his father, in 1799, to reside with Mr. Abernethy, whose pupil he became. Young Lawrence soon displayed the abilities which have since distinguished him, and being industrious and accommodating, won the favour of his illustrious preceptor, who, after he had been three years a pupil, appointed him demonstrator of anatomy at St. Bartholomew's Hospital. He thus began to teach at an early age, but his assiduity and talent justified the selection, which the favour of his fellow-students also ratified. Mr. Lawrence continued to perform the duties of demonstrator for twelve years. He passed the College of Surgeons in 1805. In March, 1813, he became assistant-surgeon to St. Bartholomew's Hospital, and in May, 1824, one of the principal surgeons. Mr. Lawrence has therefore been officially connected with the hospital for a period of *fifty-two* years; a sufficiently long lease of advantages to make retirement an act of decency and justice. But Mr. Lawrence, like all politicians, values *position*, and he will probably never relinquish office until he discards practice, or until some extraordinary rebellion occurs in the Board-room of the Hospital.

Complaints, not loud but deep, have been made against him for his unrelaxing tenacity of office; and there are many men at this moment at St. Bartholomew's who would throw up their caps and sing a pæan on hearing that Lawrence had resigned. Some of his most ardent admirers consider this to be his only fault. Generous spirits! Certainly there is a time when the dim eye and the faltering hand require exemption from duty, and when that period comes, resignation of office is merely an act of justice. But it would be difficult to persuade Lawrence that this period had arrived in his instance; and we must confess that, though bending under the weight of advancing years, he looks greenly and freshly, and doubtless considers himself to be still "every inch a surgeon." These matters should not, however, be left to the option of individuals, but decided by the rules of each institution. After sixty-five a man should retire from active duty.

In 1813, Mr. Lawrence became a Fellow of the Royal Society; in 1814, surgeon to the Eye Infirmary; and in 1815, surgeon to the Royal Hospitals of Bridewell and Bethlehem. He was appointed in the latter year one of the professors of anatomy and surgery to the College of Surgeons, an office he held for four years. He also lectured on Surgery in the Aldersgate-street school, for one session, 1826–7; retiring from it in 1828–9, to succeed Mr. Abernethy in the lectures on Surgery, at St. Bartholomew's Hospital.

In his introductory lecture, delivered at the College of Surgeons, Lawrence eulogised Abernethy as became a modest and grateful pupil; he especially adverted to his "invariable kindness," "disinterested friendship," "benevolent and honourable feelings," "independent spirit and liberal conduct," "which, while they dignify our profession, win our love, and command our respect for genius and knowledge, converting these precious gifts into instruments of the most extensive public good." Thus in a magniloquent sentence, more sincere we trust than grammatical, Lawrence extolled the virtues of his teacher, Abernethy; but the veneration was not of long continuance, and within a very few years from that time, a literary controversy arose between the master and pupil, in which sarcasm was substituted for compliment, and contempt for admiration.

Lawrence's manner as a lecturer was a model of art. No man of his day excelled him; Green alone was his rival. We do not speak of Cooper or Abernethy, each of whom was a genius, and a law to himself. Lawrence owed more to culture, and studied all the turns of language and refinements of style which give a classic finish to rhetorical composition.

We allude more especially to his introductories and orations. In these he attended not more to the matter than he did to the delivery, and he desired less that the latter should be striking, than that it should be correct, graceful, and faultless.

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When it was known that Lawrence was going to lecture, every idle man in the profession flocked to the theatre. The desk became a throne, and Lawrence was crowned with acclamation. He was greater here than even in the operating room, because he had more opportunity of exhibiting the riches of his intellect, the versatility of his nature, the depth and variety of his researches, the acuteness and vigour, the grasp and breadth of his understanding, the boldness of his reasonings, and the felicity of his cultivated diction, all set off and illustrated by a face and figure which threw new charms around his discourse, and elicited the involuntary plaudits of his hearers. Even his ordinary lectures at the theatre of the hospital were an attraction to students from all the other hospitals in London. "Let us go and hear Lawrence," was a common phrase, and he who returned to his native town after a winter session, without having once heard the "great gun" of St. Bartholomew's was regarded as a man of little curiosity or taste. A St. Bartholomew's man would certainly hold such a one in considerable contempt.

Mr. Lawrence became an author at a very early period, having published, in his eighteenth year, a translation from the Latin of a "Description of the Arteries of the Human Body, reduced in the form of Tables by Adolphus Murray, M.D., professor of anatomy and surgery at Upsal." His name did not appear on the title-page, but the work was useful to students.

His most important, perhaps his best and most generally renowned work, however, is his essay on the "Treatment of Hernia," first published in 1807, having in the previous year received the prize offered by the College of Surgeons for the best essay on the subject.

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In the same year he brought out a translation of Blumenbach's work on Comparative Anatomy.

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In 1808 he published "Observations on a Peculiar Affection of the Testis, attended with the Growth of Fungus from that Organ," in which this disease was first described.

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In 1809 "Observations on Lithotomy; with the Account of a Case in which the Operation was performed with the Knife."

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His most remarkable works are, however, "An Introduction to Comparative Anatomy and Physiology, being the Introductory Lectures delivered at the Royal College of Surgeons, on the 21st and 25th of March, 1816," and "Lectures on Physiology, Zoology, and the Natural History of Man. Delivered at the Royal College of Surgeons, 1819."

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To come out of such a struggle with success, Lawrence knew that he must exert all his faculties, and he, therefore, had recourse to every art of the rhetorician. Arguments, vigorous and close; eloquence, voluminous and stately, are employed by turns, and, when they are felt to fail, insinuation and sarcasm glance from the glowing pages. Since this period, however, Lawrence's manner has changed; he has dropped his sarcasm and his rhetoric, and writes and lectures in a plain, simple, yet withal, agreeable and easy style.

What is life? Now-a-days, one is surprised that a strife so bitter as that between Abernethy and Lawrence should have been carried on upon the subject of an answer to this inquiry. Abernethy, it is well-known, in one of his prelections before the College of Surgeons, maintained the doctrine of John Hunter; but what that doctrine was, did not very clearly appear. Hunter described his vital principle in this wise: "I consider that *something similar* to the materials of the brain is diffused through the body, and even contained in the blood, between which and the brain, a communication is kept up by the nerves." If the expression be not irreverent, we may be permitted to say that we could as easily extract sunbeams from cucumbers, as an intelligible idea of the principle of vitality from this hazy definition. The vital principle is first *something*, then a *similar* something to the materials of the brain; but how nearly similar or how far dissimilar, and in what respect, does not appear. This "something similar" is diffused through the body and blood, and the nerves are stated to be the communicators of intelligence, sensation, and what not, between it and the brain. This something similar being *the* unknown entity superadded to the demonstrable physical structure, is the vital principle: ergo, this "something similar", being of the nature of the "materials of the brain," must of course be itself material, or it loses its similarity and the vital principle of John Hunter is, after all, nothing but a physical thing, and his physiology a system of *materialism*.

Yet it was not so considered. The fetishism was strong for John Hunter. He was supposed to mean more than he said, and he was set up as the author of a doctrine teaching a refined spirituality. Abernethy stepped forth as his high priest.

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However, Abernethy expounded Hunter's views, and his

pupil, Lawrence, called them in question. The Aristotle and Aristoxenus of medical philosophy join issue, and form rival schools.

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But Lawrence advanced further than this; he said that matter was endowed with *vital properties*—sensibility and irritability, &c.: by virtue of which the phenomena which he called "life" were carried on. Whereas other philosophers regarded life as due to an independent principle, called the *vital principle;* Lawrence viewed it as the result of the action of certain *vital properties* belonging to matter. His vital properties perform the same office as the vital principle of the spiritualists, being the sustainer of life. Plainly speaking, therefore, Lawrence regarded "vitality" as an inherent property of matter.

Lawrence lost himself here; had he been contented with merely giving an accurate definition of the phrases "life," "organization," "function," &c., he might have earned unqualified praise, but when he ventured to determine the nature of vitality, and indulged assumptions which struck a gratuitous blow at the philosophy and the religion of his country, he sacrificed both his character and his logic. As a philosopher he was not justified in assuming what he could not prove. Thus, for the sake of championing a fallacy, he rashly denuded himself of the character of a Christian.

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Abernethy denounced Lawrence as a materialist, and charged him with prostituting his office as Lecturer to the Royal College of Surgeons to promulgate false and pernicious doctrine. Lawrence retorted with skill and eloquence, but he could not repel an accusation which his irreverent mode of dealing with sacred subjects seemed to confirm. That Lawrence is in his heart a materialist we should be sorry to understand, and are unwilling to believe.

Such was this celebrated quarrel. Abernethy anathematised Lawrence in *ex cathedra* sentences, charging him with having a small mind and bad motives; and Lawrence retorted with sarcasm and scorn. From that time forth we suspect that there was no love between them; the master had expelled the pupil from his affections, the pupil disowned the master, and both were too proud to confess to indecorum or error.

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We must, however, hope in charity that, although the intellect was not convinced, the heart was moved. We can scarcely credit the belief, that after Lawrence's protracted and energetic struggle with Abernethy, he could have been suddenly converted from his errors by a simple discussion of the matter in the Board-room of a Lunatic Asylum. His will might bow to authority, but his reason must have risen superior to its edicts. We know not what may be at present his opinion on the subject of these speculations, and it were bootless to inquire. On reviewing, however, the whole of the arguments, we are constrained to avow our opinion that he was pursued with an intensity of rancour far exceeding the grounds of justification derived from the demerits of his reasonings. He was equivocal, but we are willing to believe not intentionally unchristian. He did not positively deny that which Abernethy could not prove.

Lawrence had scarcely cooled after the excitement of his contest with Abernethy when he engaged in a political struggle with the Council of the College of Surgeons, among whom Abernethy's influence was supreme. Whether his political Championship was excited by his personal feelings, as was publicly averred at the time, or whether he buckled on his armour animated by an earnest conviction of the justice of his cause, it is not now easy to determine. The events of his life have not facilitated the formation of a judgment on his motives.

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Desirous of the support of the press, or unable to extricate himself from its embrace, Lawrence associated with Wakley, and for a time they worked together with sufficient amity and concord. Lawrence was general, and Wakley trumpeter of the brigade. The latter drew up in the rear among the awkward squad, for he had not yet had his drilling in medical agitation. He certainly learned his discipline and tactics while fighting under Lawrence; but it must be admitted that he was an apt pupil, and bettered the instruction. We can imagine Wakley's subserviency to his chief at the same time that he was looking out for an opportunity to carry on a little guerilla work on his own account. This was evident at the first meeting. Our business, however, is with Lawrence.

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So much, then, for the great surgeon of St. Bartholomew's. His career is drawing to a close; beginning in a burst of sunshine, it is closing in a fog. Before he had tried mankind he relied upon his own strength, and, true to his convictions, he startled the world with the apparent novelty and hardihood of his doctrines. He threw down the glove to all comers, and gallantly closed with the first champion,—a man of great intellectual strength and high mettle, but the first murmur from the crowd paralysed his spirit. He saw that, even though truth might be on his side, opinion was against him, and, rather than lose possession of the flesh-pots he coveted, he confessed to a creed he had denied, and covered his head with dust and ashes.

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In sketching the career of a man so difficult to understand, and so much vilified as Lawrence, we may not have escaped the charge of having been unjust in some points, and too eulogistic in others: for the first offence we ask forgiveness, for the second we desire that the allegation may continue to be recorded against us, for we would be rather judged as sympathising with intellectual power, than decrying it in a hypocritical and jealous spirit.

Legal Intelligence.

CHARGE OF MANSLAUGHTER AGAINST A HERBALIST.

HOME CIRCUIT—HERTFORD, JULY 16.

ISAAC CHAMBERLAIN, 67 years of age, herbalist, was indicted for feloniously killing one Mary Anne Parish, at Aldbury.

The offence imputed was only manslaughter. The prisoner had for many years carried on the business of a herbalist, and he was also what is called a "quack doctor." The deceased woman had for some years a tumour on her shoulder, and in March, 1866, she consulted the prisoner, who gave her first a mercurial ointment, to which no objection was taken. After this, it was said he had given her a different ointment, which was arsenical, and this, it was suggested, had caused death, by being absorbed into the system. The case for the prosecution was that she became worse after she used this ointment—that is to say, in August, 1866; that she suffered from arsenical symptoms; and that her death, which happened in September, was owing to this cause. It was not disputed that she died with the symptoms of arsenic, nor that there was arsenic in the ointment. The question was whether there was "culpable negligence" on the part of the prisoner in giving it. Dr. Taylor admitted that arsenic was used upon the Continent, and that it had been used in this country until within the last thirty years, when he said it was discovered that it was absorbed into the system, when it was discontinued in this country, though it still was used upon the Continent. The foreign practitioners, he said, were a little more given to a bold system in cases apparently hopeless, and a little more disposed to what he called "heroic" treatment—that is to say, treatment in which the medical practitioner, for the sake of the patient, runs some risk—than our English practitioners, who, he intimated, were rather more cautious in such cases. Another point on which the case turned was as to the prisoner not having warned the deceased as to the necessary effect of the arsenic when absorbed into the system. This, it will be observed, struck the learned Judge as the most serious part of the case, in the absence of any proper directions or warnings to the patient as to the care with which the ointment should be used. As to this, it did not appear that the prisoner had given any particular directions beyond telling her to "rub some of the ointment in;" and the woman, thinking that the more she rubbed the better, had rubbed so much of the poison in that she died; and the prisoner had sold her another box of the ointment without, as it appeared, making any observation as to the effect of the other.

Mr. Serjeant PARRY, in defence of the prisoner, acknowledged that his learned friend, Mr. Garth, had conducted the prosecution with great candour and propriety, and he endeavoured to make out that it was a case of a mere blunder or error, and not a case of negligence so culpable as to be criminal.

Mr. Justice BLACKBURN, in summing up the case to the jury, said that if the prisoner by culpable negligence had caused the death he was guilty of manslaughter; but the mere fact that death had occurred through mistake or misfortune would not

be enough, or no medical man would be safe. There must, however, be competent knowledge and care in dealing with a dangerous drug, and if the man either was ignorant of the nature of the drug he used, or was guilty of gross want of care in its use there would be criminal culpability. In the one case there would be culpable rashness in using so dangerous a drug in ignorance of it; in the other case there would be culpable want of care, or culpable carelessness in the use of the drug; and in either case that would be culpable and criminal negligence, which would justify a conviction—supposing the jury satisfied that the death arose from the arsenic. The first question was whether the death was caused by the arsenic administered by the prisoner, upon which, however, he thought the evidence strong. The real question would be one of culpable negligence, which resolved itself into the two questions he had explained. He could not define the nature of "culpable negligence" otherwise than as he had described it. It was a question for the jury, for it was a question of degree. It was a question of more or less, and it could not be defined. All the direction he could give them was, that if the prisoner administered the arsenic without knowing or taking the pains to find out what its effect would be, or if, knowing this he gave it to the patient to be used without giving her adequate directions as to its use, there would in either view be culpable negligence, and the prisoner ought to be convicted; otherwise there would not be such negligence, and the prisoner ought to be acquitted. The most serious part of the case was in the apparent absence of cautions or directions to the woman as to the use of the arsenical ointment, the effect of which it was well-known was that it would be absorbed into the system so as to cause death. It was said that foreign doctors used it; but if so it might be presumed that they watched its use with care. And it appeared to him that a medical man who should administer such a drug, or allow a patient to apply it without taking any care to observe its effects or guard against them, would be gravely wanting in due care. Whether, under the circumstances, it amounted to culpable negligence was, he repeated, for the jury.

The jury, after a brief consideration, returned a verdict for the prisoner.

Correspondence.

THE ICE-BAG.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In a letter with the above heading, which appeared in THE MEDICAL PRESS AND CIRCULAR, on the 3rd inst., "Pro Bono Publico" asks whether the application of the spinal ice-bag is likely to be as efficacious in the treatment of "the sickness attending a bilious attack," as it is in cases of sea-sickness. I beg to say, by way of reply, that I have already proved its efficacy in several cases of sickness attending bilious attacks; but the cures were not effected by merely treating the sickness during the period of the attacks: the sickness was rather *prevented* than arrested. I should as soon think of curing epilepsy by treatment restricted to the period of the paroxysm, as I should of curing "sick headaches," or "bilious attacks," by treatment restricted to the period of sickness. They, like the paroxysms of epilepsy, are but explosions originating in a morbid condition of the nervous system, their violence and frequency being proportionate to the degree of development of that condition. If this view be correct (and I am sure it is), the only rational treatment is that which aims to prevent the attacks by exerting a healing influence on the patient during the intervals. I hope to be able, at no distant time, to publish an account of my experience which justifies the above statements.—I am, sir, yours truly,

JOHN CHAPMAN.

A PLEA FOR OPIUM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I beg to state that M. Gaskoin's assertion in last week's impression of the MEDICAL PRESS AND CIRCULAR, that opium "seems wholly neglected" by the Irish practitioners in the treatment of epidemic cerebro-spinal disease, is not quite borne out by facts. I have seen opium employed in that affection in Dublin with the best results, and in my paper on eye affections occurring during the course of the malady, published in the last number of the *Dublin Quarterly Journal*, opium is mentioned incidentally in most favourable terms. In the same number of the journal Dr. Gordon in his exhaustive paper alludes at some length to the propriety of the administration of opium.

Chauffard is generally regarded as having been the first to employ and to recommend opium in this epidemic, but I venture to believe that others employed that drug before him, and recommended its administration, if not before, certainly contemporaneously with Chauffard, whose paper appears in the April number of the *Revue Médicale* for 1842. In the *Gazette Médicale de Paris* for April, 1842 (a weekly journal), Forget's papers on the Strasburg epidemic of 1840 appear, in which he speaks of the "excellent" and the "marvellous" effects of opium. I am under the impression that the epidemic appeared in Italy in 1839-40, and that opium was there employed and recommended by a physician named Elefanti. Forget states he derived the idea of employing opium from the writings of Sydenham.

Apologizing to you, sir, for occupying so much of your space, and to Mr. Gaskoin—himself a known authority on this subject—for venturing to question his assertion.—I remain, &c.

H. WILSON.

NAVAL MEDICAL ASPIRANTS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In your issue of the 12th ult., the letter from the Naval Medical Inspector General gives a most excellent idea of the description of candidates for gold lace and cocked hats, and ten shillings a-day. No firstrate young men offered! What a sad exposure for those colleges, "and by three naval surgeons." I know two of the three well, but rank is not talent—not yet awhile. What is meant by a *good* examination? however, let that pass, the *good* and the *moderately*—how expressive—*good*, and the *indifferent* were all taken. What a delightful batch of deputy inspecting examiners they will make. Well, they say "it is an ill wind that blows nobody good," I hope they are delighted with the friendly breeze that wafted them to such a heavenly shore.

I consider the promotion held out to these young men anything but a boon, it is simply an Admiralty dodge—what are their chances in getting a ship when promoted? What are the chances of their serving their time for increase of pay? What are their chances of *their ever being allowed to serve that time?* What are their chances of their having either a red or a black mark against their names, and yet never know that such a mark is there? What are their chances of having to retire for life with a broken down consitution, a wife, and eight or ten children, upon seven, ten, or eleven shillings a day—at the rate of tenpence or a shilling a-day for each of them. How well they will be educated, clothed, and fed, and how high they will move in society. No, sir, the Navy will get no respectable, firstrate men under the present regime. Let the Admiralty give those on the ten shilling list sixteen shillings a-day, and those on the eleven shilling list, a pound, and frame a retiring scale accordingly, and then, sir, something may be done. The shrewd, talented young man looks to his future position, not to be left in his old age, next door to beggary—a mere subsistence.

I have had to struggle for years upon six shillings a-day with a wife and eight children !!! Were I to die to-morrow I could not leave them a shilling, and my widow would have from the Royal Naval Supplemental Fund something, about twenty-six pounds a-year !!! Now, ye aspiring non-combatant young would-be heroes, look at this side of the question. If your captain should write against you to the admiralty, you will never know it, hence your future promotion is all "*in nubibus.*"—I am, sir, yours, &c.,

ONE OF THE VICTIMS.

MEDICAL OFFICERS' ANNUITY SOCIETY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I beg to trespass on your space by informing such of your readers as have not seen the last Poor-law Report that it appears from the 18th section of it, page 21, that though "every Irish Union has a claim to share in the benefit of this grant" of £59,300, the Commissioners have a discretionary power with respect to its distribution. Should this discretion admit of the appropriation of so small a sum as £1600, or even of twice that amount, to assist, I might say, to *ensure* the establishment of a Poor-law Medical Officers' Widows and Orphans Annuity Society, there is little doubt that Government and the

Commissioners would be well pleased to further such appropriation, if proposed by the Poor-law Medical Officers.

DENIS PHELAN.

Gleanings.

DR. WHISTLER'S CASE.—We regret to find a disposition springing up amongst boards of Poor-law guardians and committees of dispensary districts to deal in anything but a liberal spirit with the medical officers appointed under the Medical Charities Act. The miserably inadequate remuneration which is grudgingly doled out to these public officers has recently, as our readers are aware, been the subject of severe comment on the part of one of the highest Judges in the land. That comment was called forth by the revelations made in the course of a trial in which Dr. Whistler, the medical officer of the Bray dispensary district, was concerned. The onerous and responsible character of the duties incumbent on these gentlemen was then made abundantly manifest, and was the occasion of eliciting from the Bench an indignant protest against the system of inadequate remuneration which so widely, we might say universally, prevails. The board of guardians of the Rathdown Union, however, appear determined not to profit by the advice then tendered. They appear inclined rather to resent it as an unwarrantable interference with their privileges. An application from Dr. Whistler for six weeks' leave of absence was yesterday disposed of by them after a fashion which may claim, at least, the credit of originality. Dr. Whistler applied for leave of absence for the period named, on the ground of ill health, which was duly certified. It has been the custom to comply with similar applications, and to pay a substitute to attend to the duties in the meantime. The Bray Dispensary Committee had complied with this established custom. But the guardians seemed to think it one which would be more honoured in the breach than in the observance, and, accordingly, they declined to grant the required permission, but passed a resolution, allowing Dr. Whistler to absent himself from duty for two months, on condition of his paying the cost of providing a substitute. This wretched system of cheese-paring economy cannot be too strongly reprobated. It defeats its own object. The amount of pauperism in a community is dependent in no small degree on the provision made for proper medical relief to the poor. That object cannot be attained if the medical officers appointed to supply that relief are inadequately paid. The dispensary medical officers throughout the country are, as a rule, no doubt, thoroughly qualified men. But that is the very reason why they should be properly remunerated and considerately dealt with. The adoption of a contrary course will eventually drive properly qualified practitioners out of the service, and leave it to the less fit members of the body. The step taken by the Rathdown Guardians, and that adopted by the Naas Guardians, as reported in our columns to-day, are well fitted to insure this result. We had hoped that the payment of one half of the salaries of these officers out of the Imperial Treasury would have tended rather to increase the remuneration, and consequently to improve the character of the service. If the course pursued by the two bodies we have alluded to finds imitators elsewhere, our anticipations will be bitterly disappointed.—*Dublin Daily Express*, 18th July.

WE perceive by our correspondent's report of the proceedings at the meeting of the Rathdown Guardians that the Board have granted six weeks' leave of absence to Dr. Whistler, of Bray, on account of ill-health, aggravated, if not caused, by over-exertion during the existence of the cholera epidemic. The Board, however, have granted this leave on condition that he pays a substitute during his absence. It is hard that a dispensary physician, paid £90 yearly, could not, without pecuniary sacrifice, obtain sick leave. There is a strong feeling that in cases of illness the salary of a substitute should be paid out of the rates. An act of liberality is the best encouragement to future exertion. "LEAVE OF ABSENCE TO DR. WHISTLER—Mr. Smyth read a *recommendation from the Bray Dispensary Committee*, that Dr. Whistler receive six weeks' leave of absence in consequence of ill health, and that Dr. H. Raverty be his *locum tenens* during his absence, and *that he be paid for such services out of the poor-rates*. Mr. Smyth also read three certificates from Drs. Hudson, Stokes, M'Dowell, strongly worded, urging the advisability of change of air, rest, and freedom from all professional duties. Each and all of the certificates attributed Dr. Whistler's ill-health to over-work and straining of the nervous system from recent anxiety and professional labours. Indeed, Dr. Stokes went on to say that he was well acquainted with Dr. Whistler's constitution, having attended him for fever some years since, and he deemed it necessary to order him complete rest and change of air. A strong opposition was raised by Messrs. Riall and Brenan to the payment of Dr. Whistler's deputy out of the poor-rates. They had no objection to his taking two months' leave of absence, provided he paid his substitute himself, but it was not right to burden the poor-rates with a double salary for the one work. Mr. Smyth spoke warmly on the subject, and said this was an unparalleled case. He held in his hand the certificates of three eminent men in the medical profession, who would rather cut off their right hand than be guilty of falsehood. In those certificates, rest and quiet was distinctly laid down. Was it fair, was it right, that a man who, in a great measure, owed his present ill-health to his exertions as a dispensary doctor, should have to pay a gentleman for performing his duties while absent on sick leave? He begged to move that Dr. Whistler be given six weeks' leave of absence, and that his substitute be paid out of the poor-rates. The Chairman [Sir George Hodson, Bart.], agreed with Mr. Smyth. There was an application before him from the master, requesting leave of absence, but his case was quite different, he was going to see his friends, in fact, a fortnight's visit, and had made every provision himself that his duties should be carried on in his absence, but Dr. Whistler was in ill health and unable to carry on his business. In answer to Mr. Brennan, the Chairman replied that if Dr. Gray, who also received leave of absence for a fortnight, was under the impression that if he were on a sick bed and unable to attend to his professional duties he would be called on to pay his substitute during the period of such illness, he was greatly mistaken. Mr. Smyth then put his motion, which was negatived. After which, it was moved and seconded that Dr. Whistler be allowed six weeks' leave of absence from dispensary duty, and that the substitute be paid by Dr. Whistler."—*Irish Times*, 18*th July*.

A FACT.—"Tiens," said a Belgian Volunteer to his comrade on arriving opposite the War Office in Pall-Mall, "quel est ce batiment-la?" "C'est l'Hôpital des Incurables," said the other. "Et la statue?" was the next question. "Parbleu," was the reply, "c'est le médecin de l'endroit qui songe au pansement de ses malades;" and they both strutted on to look at the other beauties of our great metropolis.—*The Owl*.

THE HOSPITAL FOR SOLDIERS' WIVES AT ALDERSHOT.—The married soldiers of regiments now at Aldershot, and those also of other corps who have previously been quartered there, will regret to hear that Dr. Barry is about to leave the station where he has been so long employed on the medical staff. On the formation of the female hospital for soldiers' wives and children at Aldershot in September, 1860, this gentleman was appointed medical officer to the establishment, and secretary to the committee of management. In the discharge of these arduous duties Dr. Barry's services have been beyond praise; ever attentive and kind to the patients, their remembrance of him can but be one of gratitude, while his energetic efforts as secretary have been in the highest degree conducive to the success of the institution. Assistant-Surgeon Mackenzie, 62nd Regiment, has been appointed to succeed Surgeon-Major Barry.—*United Service Gazette*.

THE KALLIMA PARALEKTA.—These butterflies frequent dry forests and fly very swiftly. They were never seen to settle on a flower or a green leaf, but were many times suddenly lost sight of in a bush or tree of dead leaves. On such occasions they were generally searched for in vain, for while gazing intently at the very spot where one had disappeared, it would often suddenly dart out, and again vanish twenty or fifty yards further on. On one or two occasions the insect was detected reposing, and it could then be seen how completely it assimilates itself to the surrounding leaves. It sits on a nearly upright twig, the wings fitting closely back to back, concealing the antennæ and head, which are drawn up between their bases. The little tails of the hind wing touch the branch, and form a perfect stalk to the leaf, which is supported in its place by the claws of the middle pair of feet, which are slender and inconspicuous. The irregular outline of wings gives exactly the perspective effect of a shrivelled leaf.

We thus have size, colour, form, markings, and habits, all combining together to produce a disguise which may be said to be absolutely perfect; and the protection which it affords is sufficiently indicated by the abundance of the individuals that possess it.—*Westminster Review.*

THE REMEDY FOR CRAMMING.—The remedy for the pestilent system of cramming, which is eating into the very heart of our education, lies in the hands of one class of persons only. It is, perhaps, difficult to overestimate the amount of power for good and for evil that is placed at the disposal of these gentlemen who act as examiners for educational institutions and public bodies. They are intellectual monarchs with almost despotic powers, and with very few and slight restrictions. They can make and unmake lecturers and tutors, they can suspend, diminish, or increase the sale of this book or that, according to the character of the questions they put to candidates The chief inquiry of the student about to attend Professor A——'s lectures is, Will they equip me for the B examination? The first question of a university publisher, when he is offered a new text-book is, For what examination will it prepare the student? Were all examiners, with one accord, so to frame their examinations as to make them touchstones of real knowledge, the whole system of cramming would wither away in a twelvemonth.—*The Laboratory.*

Medical News.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—List of the gentlemen who obtained the Licence in Medicine during the months of April, May, and June:—

W. H. Blenkinsop, Bournemouth, Hants; S. H. Harris, 27, Leinster-square; G. W. Hatchell, 13, Hume-street; J. H. Hatchell, ditto; J. D. Hillis, 21. Heytesbury-street; A. H. F. Lynch, Army Medical Staff, Killester Hall, Raheny; C. G. Lyster, Cascade House, Co. Kilkenny; J. P. McDermott, Riversdale, Dundrum; W. M. M'Dermott, Cloongee, Foxford: B. F. McDowell, 29, York-street; G. W. Owens, 25, Kildare-street; B. Roberts, Eastbourne, Sussex; W. F. Samuels, Seafield House, Kingstown; G. Shaw, 93, Talbot-street; F. H. Smith, Bombay Army.

The following gentlemen obtained the Midwifery Diploma during the same period:—

D. H. Bastable, Kanturk; S. H. Harris, G. W. Hatchell, J. D. Hillis, A. H. F. Lynch, C. G. Lyster, J. P. McDermott, H W. Maunsell, 21, Rathmines-road; A. O'Flynn, Sligo; W. F. Samuels.

EXTRAORDINARY FATALITY TO THREE SURGEONS.—A letter from Kehl, in the *Courrier du Bas-Rhin*, mentions the death, a few days back, at Heidelberg, of a surgeon named Weber, and two of his assistants, under very painful circumstances. All three had been to a country-house in the neighbourhood to attend two children attacked by diphtheria. In the case of one of them, the operation of tracheotomy was found necessary, and M. Weber, whilst engaged in performing it, unfortunately allowed a small clot of blood to fall into the child's windpipe. In the absence of a proper instrument for extraction, he sucked the wound to get out the foreign substance. Having failed, the others in succession applied their mouths to the wound, and at last succeeded in their object. They, however, all caught the malady, and succumbed to it in the course of six hours. Professor Weber was only 39 years of age, but had already acquired a high reputation.

CHOLERA IN SICILY.—The official accounts of the cholera in Sicily, dated Palermo, the 29th of June and the 4th of July, report as follows:—In the province of Girgenti, from the 18th to the 27th of June, 2573 attacks, and 1371 deaths; Caltanisetta, from the 17th to the 27th, 1305 attacks, and 762 deaths; Trapani, from the 19th to the 27th, 17 attacks, and 13 deaths; Catania, from the 23d to the 28th, 107 attacks, and 55 deaths. For the week ended July 4, for the provinces of Catania, Caltanisetta, Girgetti, and Trapani the attacks were 2383, and the deaths 1421. Palermo and Messina enjoy perfect health, and both have established cordons against infected districts.

THE new Infirmary at Leeds seems to be a structure of almost unexampled completeness. It is built of stone and red brick, and contains ten galleries; these are at least 28 feet wide, and have a length of from 110 to 125 feet. The central hall is 150 feet long and 65 feet wide. The building was designed by Mr. Gilbert Scott, R.A.

INTERESTING SOUVENER.—At the final disposition of the property of the late Mr. John Phillip, R.A., the very last work on which he was engaged, "The Race against Time," has appropriately been presented to Mr. Henry Thompson, Surgeon to University College Hospital, under the following circumstances. During an illness, says a popular writer in a morning contemporary, which shortly preceded his last attack, Mr. Thompson attended him, and was sitting with one hand on the artist's pulse while the other held his watch, which he was attentively regarding. Something in the *pose* and general effect struck the artist, who said, "If I live through this, I'll paint the subject and call it 'The Race against Time.'" He only lived to execute the preliminary sketch in chalk, which has deservedly been presented to Mr. Thompson.

THE Committee of the Liberal-Conservative party of the University of London, at a meeting held on Wednesday evening, drew up a circular to be issued as a report to the 300 members of the large committee.

THE annual meeting of the Governors of the Westminster Ophthalmic Hospital, was held on Wednesday. During the last year 8220 new cases were treated, and 1005 operations performed. The hospital is undergoing enlargement and repair. There is a deficit in the exchequer of £160, 9s. 7d.

CHOLERA AT ADEN.—A Suez telegram states that all arrivals from Aden are submitted to a strict quarantine, on account of the cholera. It is strange, however, that arrivals from India are not so dealt with.

RELATION OF THE ANT-EATER TO THE APE.—The researches which M. G. Pouchet has just laid before the French Academy show that the joints of the fore limb of the great ant-eater resemble closely those of the primates.

THE cause of tubercular disease, according to a memoir just published by M. Lebert, of Breslau, is simply a shortening of the pulmonary artery.

THE ATTEMPTED MURDER OF DR. PRICHARD.—John Jones, 70, who was tried at the Glamorgan assizes on Wednesday, and found guilty of shooting at Dr. Prichard, with intent to murder him, was brought up on Thursday for judgment. The sentence passed by Mr. Baron Channell was ten years' penal servitude.

THE NAVAL REVIEW.—A fatal accident occurred in one of the forts on the Gosport peninsula during the attack made on the forts by the gunboat Flotilla on Wednesday. Two gunners of the Royal Artillery were blown away from the mouth of an eight-inch gun by a premature explosion of the powder charge they were engaged at the time in ramming home in loading the gun. One poor fellow had his left arm carried off near the shoulder, and the other had his left hand and part of the arm, nearly to the elbow, carried away The former died in hospital on Friday morning. The latter may recover, but he is maimed for life.

NOTICES TO CORRESPONDENTS.

Communications to the London Editor should be addressed to 20, King William-street, Strand; to the Edinburgh Editor, at Maclachlan and Stewart's, South Bridge; and to the Dublin Editor, at 3, Lincoln-place.

All Contributions are attentively considered, and unaccepted MSS. are returned on receipt of stamps for postage; but the Editors cannot be responsible for any accidental loss, nor can MSS. or replies be delivered on personal application.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Firmus.—Consult any respectable practitioner.

A Subscriber wants to know the end of Mr. PORTER'S case of aneurism of subclavian artery.

ANSWER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—My patient with subclavian aneurism is still in the hospital. The wound perfectly healed. The tumour *harder*, but pulsating. Radial pulse scarcely to be felt, but has returned by collateral circulation. I removed the needle fifty-three hours after the operation—not a drop of blood followed. GEO. H. PORTER.

P.S.—If in Dublin, I shall be happy to let the "Subscriber" see my patient.

MEDICAL APPOINTMENTS.

Addenbrooke, E. H., M.R.C.S.E., has been appointed Resident Surgical Officer to the General Hospital, Birmingham, vice F. Steel, M.D., resigned.

Attwood, Mr. F L., has been appointed Senior House-Surgeon to the Royal Free Hospital, Gray's-inn-road, vice Mr. J. D. Hill, appointed one of the Surgeons to the Hospital.

Cameron, R., L.F.P.&S.Glas., has been appointed one of the Resident Medical Officers to the York Dispensary, vice E. S. Green, L.R.C.P.Ed., resigned.

Cape, J. T., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Halwell District of the Totnes Union, Devon, vice J. R. Quick, L.F.P.&S.Glas., resigned.

Carse, Dr. E., has been appointed Medical Officer and Public Vaccinator for the No. 7 or Middlezoy District of the Bridgewater Union, Somersetshire, vice Farmer, whose appointment has expired.

Coombs, C. P., M.B., has been appointed Medical Officer for the Castle Cary District of the Wincanton Union, Somersetshire, vice S. S. Larcombe, M.R.C.S.E., resigned.

Hilton, C. S., M.D., has been appointed Medical Officer for the Upholland District of the Wigan Union, Lancashire, vice Morris, deceased.

Holt, J., L.R.C.P.Ed., has been appointed Medical Officer for the Ovenden District of the Halifax Union, Yorkshire.

Hornby, G., M.R.C.S.E., has been appointed Surgeon to the York County Hospital.

Istance, R., M.R.C.S.E., has been elected Surgeon to the Garth Sheet-iron Company's Works, near Newport, Monmouthshire.

Mitchell, J., M.D., has been appointed Medical Officer for the Barnard Castle District and the Workhouse of the Teesdale Union, Durham, vice I. C. Cust, M.R.C.S.E., deceased.

Leatham, W., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Coal Island Dispensary District of the Dungannon Union, vice S. J. Graydon, M.D., resigned.

Penn, Mr. A., has been appointed Medical Officer for District No. 1, and the Workhouse of the South Stoneham Union, vice J. C. Harris, M.R.C.S.E., resigned.

Plowman, R., L.R.C.P.L., has been appointed House-Surgeon to the Coventry and Warwickshire Hospital.

Tindall, Mr. A. M'J., has been appointed Medical Officer for District No. 2 of the Market Harborough Union, Leicestershire, vice Thos. Heygate, M.R.C.S.E., resigned.

Conolly, J., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Moycullen Dispensary District of the Galway Union, vice Ireland, resigned.

Darby, M., L.K.Q.C.P.I., has been appointed Medical Officer for the Monasterevan Dispensary District of the Athy Union, Co. Kildare, vice Thos. Carroll, M.R.C.S.E., deceased.

Edmundson, J., M.D., of the Clonmel Auxiliary Lunatic Asylum, has been appointed Resident Medical Superintendent of the District Lunatic Asylum, Castlebar, County Mayo, vice T. C. Burton, M.D., resigned.

Stephens, W., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Dunkineely Dispensary District of the Donegal Union, vice Davis, resigned.

Births, Marriages, and Deaths.

Announcements are inserted without charge, and must in all cases be authenticated with the signature of the sender.

BIRTHS.

Douglas.—On the 15th inst., at Somerford-place, Sunderland, the wife of Mordey Douglas, M.R.C.S.E., of a daughter.

Haslett.—On the 19th inst., at Rockville Cottage, Laghy, the wife of Samuel T. Haslett, M.D., of a son.

Horne.—On the 9th inst., at Buckhurst-hill, Essex, the wife of E. Horne, M.R.C.S.E., of a son.

Leatham.—On the 8th inst., at Stratford-green, Essex, the wife of J. Leatham, M.D., of a daughter.

Ramsbotham.—On the 10th inst., at Park-place, Leeds, the wife of S. H. Ramsbotham, M.D., of a son.

Young.—On the 9th inst., at Berkeley-terrace, Glasgow, the wife of Dr. J. Young, of a daughter.

MARRIAGES.

Murray—Trimen.—On the 11th inst., at St. Pancras Church. Wm. Berkeley Murray, M.D., of Tenbury, to Elizabeth Helen, daughter of Richard Trimen, Esq.

Lamb—Edgar.—On the 16th inst., at St. Mary's Church, Birkenhead, Joseph Lamb, M.R.C.S., to Mary Emily, only surviving child of Samuel Edgar, L.F.P. & S. Glasgow, both of Birkenhead.

Gray—Atkinson.—On the 10th inst., in Lisnadill Church, Robert Gray, Esq., of Armagh, L.R.C.S.I., to Harriet Anne, eldest surviving daughter of Hampton Atkinson, Esq., Lisnadill.

DEATHS.

Rutherford.—On the 14th of May, at Wellington, India, C. C. Rutherford, L.R.C.S.Ed., of the 18th Hussars, aged 35.

Huie.—On the 10th inst., R. Huie, M.D., of Edinburgh.

Andrews.—On the 12th inst., at Wellesley House, Brighton, J. Andrews, F.R.C.P.L., aged 65.

Savory.—On the 15th inst., at Wendover, Bucks, suddenly, Joseph Thomas Savory, M.R.C.S., L.S.A., aged 67.

Monks.—On the 15th inst., Edward Monks, M.R.C.S.E., of Norfolk-terrace, Darnley-road, Hackney, late of Arbour-terrace, Commercial-road East.

NOTICE TO ADVERTISERS.

The Medical Press and Circular

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FOR the Insertion of announcements from its extensive and largely increasing circulation in each of the three divisions of the United Kingdom and the Colonies. Being also supplied to the Hospital Libraries, &c., it will be found a most valuable medium for Advertisements of Books, Vacancies and Appointments, Sales, and Transfers of Practices, Surgical Instruments, Chemicals, and Trades generally.

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When advertisements are given for a series of insertions, a very considerable reduction from the above scale is made.

☞ Advertisements for Insertion in this Journal must be at the Office, on Monday, by Three o'Clock.

Army Medical Department, July 13, 1867.

AN EXAMINATION of CANDIDATES for COMMISSIONS in the MEDICAL DEPARTMENT of her Majesty's Army will commence on MONDAY, the 12th of August, 1867.

Candidates having the necessary qualifications to practise Medicine and Surgery under the Medical Act, and who are unmarried, and not under 21, nor above 28 years of age, are eligible to attend.

Applications for the necessary printed form should be made in writing to the Director-General of the Army Medical Department, War Office, London.

There will probably be about 55 Vacancies.

(Signed) T. G. LOGAN, Director-General.

LONDON NURSES' INSTITUTE,
42, South Audley-street, Grosvenor-square, W.

TRAINED NURSES (Medical, Surgical, Mental, and Monthly), can at all times be obtained from this Institute.

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NAAS UNION.

MEDICAL OFFICER FOR THE WORKHOUSE WANTED.

IN consequence of the much-lamented death of Dr. Kellett, late Medical Officer to the above Establishment, the Board of Guardians will, on Wednesday the 31st inst., proceed to appoint a Medical Officer, duly qualified, in accordance with the order of the Poor-Law Commissioners, at a Salary of Eighty Pounds per annum (the Board providing him with an Apothecary.)

The Gentleman appointed will be required to reside in Naas, or its immediate vicinity.

Applications from Candidates (who are required to be in attendance on the day of election at Twelve o'clock noon), accompanied by testimonials, and directed to "The Presiding Chairman of the Board," will be received by me up to Eleven o'clock on the above day.

By Order of the Board,

E. MOLLOY, Clerk of Union.

Naas Workhouse, Clerk's Office,
17th July, 1867.

At a Meeting of the Board of Guardians held on Wednesday, the 10th July, 1867, on the motion of George P. L. Mansfield, Esq., J.P., seconded by Mr. Patrick Farrell, it was unanimously resolved:—

That the following be inserted on the Minutes of the Board—

The Board of Guardians of the Naas Union have heard, with deep regret, the announcement of the death of their Medical Officer, the late Dr. Kellett

The Board feel it their melancholy duty to express their entire satisfaction for the manner in which the late Dr. Kellett performed his arduous duties during the many years he was attached to this Establishment, and they most sincerely condole with his afflicted relations.

(Signed)

GEORGE WOLFE, Presiding Chairman.
E. MOLLOY, Clerk of Union.

Apothecaries' Hall of Ireland, 40 Mary-street. The following new Medicines and Preparations are manufactured in the Laboratory on the premises, and a supply constantly on hand:—

THE NEW PREPARATIONS OF THE PHARMACOPŒIA, 1867.

TICHBORNE'S VESICATING COLLODION.

Dr. Richardson's Styptic Colloid; Syrup of Phosphate of Iron, Quina, and Strychnia; Chlorate of Quina; Perchloric Acid; Carbolic Acid, pure and crude (the latter free from Sulphuretted Hydrogen).

Original Communications.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. IV.—OF THE PHENOMENA USUALLY INCLUDED IN THE TERM "SYMPATHY" BY HUNTER AND OTHERS.

It has been remarked by Professor Whewell, and many other people, that the most important discoveries have resulted from the philosophical study of familiar and obvious phenomena, and, we have, in the History of Science, numerous and interesting records of this truth, and "In Medicine and Surgery, one Inductive Science," I cited several examples. The phenomena of "sympathy" present, I think, a series of facts which appear to me by no means as yet to have been sufficiently appreciated. I cannot go into the subject *in extenso*, without repeating much that I have elsewhere published. Wherefore I will endeavour first to summarise some of the principal points in a series of propositions which, as they are, apart from all theory, demonstrable facts, I shall venture to term "axioms."

With regard to the term "sympathy," it is not perhaps entirely unopen to objection, but I think it better than any other which our present knowledge enables us to supply. We might borrow the term "Induction," as employed in Electrical Science, but, to say nothing of the confusion arising from the employment of that word in the Baconian sense, it seems to imply more of opinion than the term "sympathy." Strictly speaking, we cannot use "sympathy" in a good sense; yet, in the sense here employed, it by no means implies suffering. All that is intended is, that certain causes, forces, influences, or by whatever name you choose to designate them, applied from without, or engendered *in* the body, and acting on one organ or one structure, are often productive, or followed by phenomena in some other organ or structure, on which they cannot be perceived to have acted, except through some connection or correspondence between the organ on which they primarily acted, and that on which the secondary effects were produced.

Axiom 1. Any force or influence acting on any one organ or structure may be followed by sensation or action on any other, and this reciprocally.

2. This reciprocity is not always equal; one organ will excite another much more readily than it will be excited itself by that organ.

3. Under ordinary circumstances, sympathetic phenomena (as we propose to call them) take place more readily between some organs than others.

4. As the rule, sympathetic phenomena occur most readily between organs, having community of structure, or of function, or contiguous or continuous surfaces.

5. Notwithstanding that the foregoing is true generally, these phenomena sometimes occur very readily between organs not having, in any known sense, this community or function, such as between the stomach and testicle, testicle and salivary glands.

6. It is not at all necessary that sympathetic phenomena should in every case be preceded or accompanied by *perceptible* phenomena in the organ or structure primarily affected, as in many cases of stomach and brain.

7. There is no known* faculty of the mind which may not be affected by some force which may have acted primarily on some organ of the body.

8. Although any organ of the body may communicate disturbing or other influence to any function of the brain or any faculty of the mind, yet experience justifies the conclusion that the mind is more readily disturbed by some organs than others. That is to say, that certain faculties of the mind are more readily disturbed by this or that organ than others, and this reciprocally.

9. That these preferences (so to speak) which occur between the bodily organs and the mental faculties are observable between the mental faculties themselves—that, for example, the intellect is materially influenced as to its activity, its direction, and, in its results, by the dominant passion or moral sentiment.

The foregoing axioms appear to me to be indisputable. The practical application of them, combined with attention to that law of determination to surface, or by whatever other name it may be designated, will, I think, be found to form the best basis for a more definite practical science. This application does not appear either in the writings of J. Hunter or Abernethy, but, as we proceed, I think it will be seen that it is the legitimate out-growth from the careful and extended study of the thoughts of these great men.

Mr. Abernethy observed that disorder might exist in an organ without that organ exemplifying any symptoms of it. This was a step. But what Abernethy thus spoke of as an exception, is unquestionably much more like *a rule*—for, with the exception of such injuries as are inflicted by mechanical or chemical means directly on an organ, it will be found that what we call the symptoms, and what is really the seat of the cause, are seldom found in the same organ.

I have used the term conservative to the law of determination to surface, and I believe that the phenomena of sympathy have the same tendency. I am disposed to retain that term at present because, although it has something of assumption in it, still it is sufficiently demonstrable and has a more comprehensive application than continuous, antiguous, or any other term. For example, *as the rule* the disturbing influences which may be ranged under one or other of these other terms, are, so far as I see, from a more important to a less important site. This conservative *tendency* is seldom imperceptible, whatever may be the organs affected. Even in the somewhat obscure sympathy remarked on by John Hunter, between the stomach and testicle, not being equally reciprocal, there is an evident conservative tendency. If the testicle had been as readily disturbed by the stomach, as the stomach is by injury to the testicle—either the habits of mankind must have been materially improved, or the usual ratio of increase in population must have been indefinitely diminished. An incalculable number of people would have had diseases of their reproducing organs; so numerous and constant are the diseases of the stomach in the present mode of living. Again, when the generative organs in the female become the seat of disease, it is, as I long ago observed, very generally at about the time when they can be better spared than any other organ in the œconomy—when, in fact, the time has elapsed, or is about to elapse, at which their special functions ceases. It is true that we *do* have, in both sexes, diseases of the generative system (as exceptions in early life), but a type of conservation is by no means always imperceptible as regards the species. (I am not thinking of those diseases the result of direct injury, whether chemical or mechanical), but in the male early diseases of the testicle seldom occur in organizations otherwise favourable to the reproduction of healthy offspring; whilst, in the female, if young, the order is usually the ovary before the uterus, and one ovary rather than both. This, as regards the uterus is favourable to the individual life, as the retention of one ovary to the power of reproduction.

But the phenomena of sympathy strongly suggest that in very many cases, affections of the reproductive organs, are *secondary* phenomena, and the improvements in practice deducible already, as I believe, from the study of sympathetic phenomena, will greatly improve the treatment of some of those lamentable cases, for which we seem to have

* I use the term "faculty" as including all or any "powers" in a common term—whether called passions, moral sentiments, or intellectual faculties.

at present no remedy but removal by operation. I am far from subscribing to this necessity, but I have no space here for enlarging on the subject. With regard to the transference of disturbing influences from the organs to which they are first presented to other parts of the œconomy, the daily occurrences in the practice of medicine offers familiar illustrations. We administer medicine, say to the stomach, and we recognize the effects sometimes on one, at other times on other organs, without the stomach having given us any evidence by which we could have imagined that it had been affected. Our purges, diuretics, sudorifics, &c., are so many illustrations of this—the two former, perhaps, being more constant than are sudorifics. This tendency to transfer influences to other organs is unquestionable. In all cases it is not quite certain that the influence is transferred from an organ more essential to life to one that is less so. It holds, I think, as regards organic diseases, but not where the secondary organ is one of the outlets of the body. In this case the disturbance of the œconomy appears to be more quickly got rid of by secretion, which we shall have occasion to regard as the universal relief, in some form or other, from all forces tending to injure the body. When we have to consider the action of poisons, an opportunity will present itself of discussing the subject of secretion more fully.

The want of more accurate study of the sympathies, appears to me to be seen every day in practice, in the almost constant manner in which symptoms are treated instead of the causes on which they depend. No doubt there is some improvement in this, but I know no part of surgery scarcely which is wholly free from this defect, as we may probably see in the course of these papers.

Now, it may be asked, how happens it, that if, as you say, we are so constantly treating symptoms, that we ever have any success. In the first place, in many cases, the removal of symptoms is no more *necessarily* good practice than the abuse of bleeding was good practice, because it made a man feel better. But, without refining unnecessary, the phenomena of sympathy show that it is very possible to affect a primarily affected organ through a secondary, but the question is, as to the consequences of those two kinds of practice, even when a removal of symptoms is achieved.

The symptoms of diseases are, as alleged, not the site of the causes of them, but transferred actions, and are in themselves, if let alone, sometimes curative ; and, again, as these phenomena which we called sympathetic, are susceptible of being excited in any direction, influences, whether medical (commonly so termed), dietetic, or any other not included in that term when directed to an organ secondarily affected, do act (sometimes directly, sometimes indirectly) on that which was primary. I am desirous of avoiding theory as much as possible, and therefore am only interested in drawing closer attention to undoubted facts, being comparatively careless whether the reader may adopt my explanation of them, or otherwise. The more familiar the illustration the better.

Certain matters taken into the stomach frequently affect the head, and this in various ways, yet there is no pain or other sensation necessarily in the stomach. Still, the patient may be, and often is, relieved in a moderate time by measures which are applied to the head, as rest, silence, subdued light, or it may be warm in one, or more rarely in another, cold applications.

Or he may prefer going into a warm bath, and a warm bed, and thus make the skin, which in the case supposed, has not exhibited any symptom—the channel for traquillizing influences.

In fact, there is no organ through which (in exceptional cases it may be) that you may not convey tanquillizing influences to an organ primarily affected. Whether that organ may be the seat of symptoms, or in many cases when it exhibits, as the primarily affected organ so commonly does, no symptom at all.

But the disadvantages of ministering to secondary organs *where you can discover* the primary are—in my view—very great, both in their more immediate as well as in their remote consequences. We shall have other opportunities of illustrating this. A very familiar instance of the advantages and disadvantages of ministering to primary or secondary sites, or causes, as the case may be, is shown in many cases of habitually torpid bowels. Now, in a great many cases, the fault is not, strictly speaking, in the bowels. These organs have a complex structure, and very extensive, very varied, and often very vivid sympathies, with mind and body. Hence the channels through which they become torpid are numerous, and (in different cases, of course), varied. Yet it too commonly happens that the remedies devoted to the correction of this state, consist almost entirely of excitants to the bowels themselves ; and with what result we have too many examples ; so that what I ventured to write some years ago, is scarcely beyond the truth, when I said that costive bowels are the torment of many a man's existence. But the disadvantages of ministering to secondary organs are, in my idea, much more serious than merely negative. They lead us to work organs, in many cases, that are doing too much already, and acting in compensation for organs which, up to a certain point, it is our object to excite into action. In fact, the ministering to secondarily affected organs, frequently leads to the excitation of organs, to which it is the very greatest importance to give all possible repose, and thus a treatment is adopted which is diametrically opposed to that which is most to be desired. Nor is it anything in disproof of this, that in some cases we obtain temporary relief. A healthy organ, acting in compensation for one not doing its duty, may *exceptionally* have its action so recovered, as to rally and have the primary organ, but I verily believe that the *factitious* continuance of a compensating action, is the too sure forerunner of organic disease. Even success, which is *temporary*—here, as it has in so many other cases—has given rise to a blind contentment, with established modes of proceeding, just as in regard to the enormous abuse of bleeding. Nothing, perhaps, impeded the more scientific adjustment of that practice, so much as the temporary improvement, which so often followed immediately on its application.

It must, however, be observed that, contrary as it may be to sound or scientific practice, to act on any but the primarily affected organ, when this can be discovered, there is an exception to this, when there is reason to believe that the primarily affected organ has become the seat of organic change. Here a remembrance of the sympathies of organs becomes often of the first importance to the obtaining of any relief of which the case may be susceptible.

In this case, according to the principles I submit, you should endeavour to excite secretion from some organ which, after a careful examination of the case, you have reason to believe is yet free from organic disease. Secondly —That which has ordinarily the closest community of function, or the most vivid sympathy with the primarily affected organ. These properties may or may not be found in the *same* organ. You thus, as regards community of function, carry out the ordinary law of the œconomy when diverted from its proper action by some interference which obliges the use of a compensating organ ; and what is so done from some interference which is removable by treatment directed to the primary organ, you now are obliged to endeavour to do from the interference of organic disease. This is a point in practice where discrimination is of the greatest value, for the very same practice which in ministering to a primarily affected organ, yet free from disease, is of the greatest benefit, becomes mischievous when applied to one diseased in structure. In speaking of organs, we must never lose sight that we are really speaking of them as subservient to their own nervous system, and again to that system as a whole, whether of mind or body.

This subject leads us to consider the various faculties of the mind and body as influenced by impressions previously addressed to the nervous system. Herein we soon find, I think, that to arrive at an accurate treatment, we must study the Sympathies much more deeply. I hope by and bye to find

space for a case or two, showing what may be done by observing what special faculties may be influenced by certain conditions of body. I think we have much here to learn as regards more refined adaptations to special conditions, than those indefinite prescriptions for repose, change of scene, &c. When I see insanity which appeared to me to be the result of forces acting on the brain, which a carefully traced history suggested as derived from the liver as the primary organ—when I say I see such insanity instantly disappearing on the occurrence of gout, I feel (after all, even as applicable to surgery, in a scientific sense), how coarsely we have studied relations of fact, cleared of all theory whatever.

This is all that I can say of sympathies at present. The foundations I am endeavouring briefly to sketch must next oblige me to request attention to one or two attempts at higher generalizations; and first, of a sketch of what I may call the analysis and identification of various phenomena assembled under the term "Fever."

CEREBRO-SPINAL FEVER: ITS TREATMENT BY MEANS OF ICE.

By JOHN CHAPMAN, M.D., M.R.C.P.,
PHYSICIAN TO THE FARRINGDON DISPENSARY.

(Continued from page 78.)

HAVING explained the several plans, the use of which I recommend in order to exert a sedative or "antiphlogistic" influence on the brain, and thus, so far as the brain is concerned, to "treat the symptoms" of cerebro-spinal fever by removing their proximate cause, I proceed to consider the propriety and method of applying cold, in order to subdue the symptoms of inflammation of the spinal cord and its membranes. I must here premise that the term "spinal cord," as just used, comprises the medulla oblongata which with the medulla spinalis constituted what Marshall Hall called "*the true spinal cord.*" Before we can act scientifically for the removal of the proximate cause of the group of symptoms, consisting of trismus, retraction of the head, opisthotonos, pleurothotonos, rigidity of the recti muscles, emprosthotonos, contraction of the muscles of the extremities, convulsions, and subsultus tendinum, we must first assure ourselves, of course, what the precise nature of that cause is. In classifying the symptoms of cerebro-spinal fever, I have assumed it to be hyperæmia, proceeding possibly to the extent of inflammation, of the spinal cord, but I am aware of the existence of a doctrine concerning the proximate cause of muscular contraction which is wholly inconsistent with that generally held on this subject, as well as with the practical application of it which I am now about to advocate. I refer, of course, to the peculiar views concerning the proximate cause of muscular contraction, and of pain, which have been elaborately and ingeniously expounded by Dr. Blande Radcliffe. In a paper entitled,—"The Treatment of Epilepsy: Principles and Practice," read to the Medical Society of London, and afterwards published in this Journal (March 27th, April 4th), I briefly explained Dr. Radcliffe's views, and adduced what appears to me conclusive reasons for believing them to be confuted by a large number of physiological, pathological, and therapeutical facts. On this occasion, therefore, while referring students interested in the subject to that paper, I shall assume, without further discussion, that all excessive muscular contraction is due to excessive energy in those nervous centres which preside over the muscular system. Now, this being so, it is obvious that the only rational way of treating locked-jaw, retraction of the head, and other tetanoid states, as well as convulsions and subsultus tendinum, is by lessening the energy of the nervous centres producing those phenomena. Can we do this? I affirm that we can, and, notwithstanding the difficulty of many thoughtful men in believing it possible, by applying ice along the spine, to influence the circulation of the spinal cord at all, and the fact that, up to the present time, this method has, with a few exceptions, been wholly disregarded or unknown, I believe that the time is not far distant when it will be counted on by medical practitioners as one of the most powerful remedial agents at their command for subduing hyperæmia or inflammation of the spinal cord.

Some physicians who are disposed to recognise the reality of the results which I have obtained by the application of heat and cold along the spine, and who cannot believe those results are due to the direct action of these agents on the spinal and sympathetic nervous centres, are inclined vaguely to regard them as phenomena of reflex action. (One of the most eminent physicians recently asked me if I had tried whether applying ice over the stomach would not produce the same effect as that produced by it when applied along the spine!) I am satisfied, however, that this view is untenable and quite inconsistent with many ascertained facts. But I cannot here enter on a discussion of this subject, and must content myself with observing that whatever mode of accounting for the results in question may be most scientific the existence of them is indubitable, and, as in a practical point of view, the question of their reality is the all-important one, I will, before proceeding further, adduce evidence that various morbid conditions of the muscular system analogus to those commonly associated with cerebro-spinal fever, may be most effectually abolished by the application of ice along the spine.

I have already cited the evidence of Dr. Todd, and I may observe in passing that he was one of the few physicians who never doubted that the application of ice along the spine acts directly on the spinal-cord. In the *Medical Times and Gazette*, March 12th, 1864, Dr. Edmunds reports a case of "Emprosthotonos (?) cured by the use of ice to the spine." The facts of the case are briefly summarised as follows:—An intelligent married woman, aged 28, mother of two children, and who was "altogether free from flightiness or hysteria," went to bed, January 21st, quite well, but on rising next morning at 7·30, found her fingers were slightly benumbed; they shortly afterwards "turned in." The "turning in" quickly extended to the hands, rapidly increased, and caused a cramp-like pain in the arms. Her legs became affected in a similar way but less severely. The morbid muscular contractions steadily increased during the day. At ten P.M. "her fore-arms were hard and rigid, and the wrists were so fully flexed that her hands were forced open," and "the backs of her wrists were fixed close to her mouth. . . . Her neck became turgid and the respiration somewhat constrained. . . Her spine was bent forward, and her knees were bent and drawn upwards. . . . She could not stand, and her legs were about as much cramped as in a bad case of cholera. . . There was an expression of great anxiety and pain upon the face, and the lips were sufficiently retracted to show the teeth. . . . She could swallow by making a great effort to ignore the tearing cramp-like pain which occupied her, and which forced from her a continual moaning scream." Between eleven and twelve A.M., Dr. Griffith ordered her some aperient medicine; at one P.M., Dr. Webber, who saw her in consultation, prescribed "sulphuric æther and antispasmodics at once, and a dose of morphia to be taken a few hours later if the pain should not abate." She grew worse; the morphia was given, and, afterwards, "all her symptoms were aggravated." At 10 P.M. Dr. Edmonds was called in. He ordered the administration of a purge consisting of croton-oil and calomel, an enema of turpentine and castor-oil, and the application of ice along the whole length of the spine. Cold was thus applied continuously during "seven hours, when all her severe symptoms had disappeared. The screaming and moans were at once mitigated by the ice, and in about half-an-hour ceased entirely. In two hours her feet became flexible. About 8 A.M. on the 23rd the spasms had so far subsided that she could open her hands, but the numbness remained. On the morning of the 24th the numbness entirely disappeared, and she had no return of cramps or spasms. . . . . The patient herself ascribes the relief of her dreadful pain and cramps entirely to the use of the ice," says Dr. Edmonds, who adds,—"and although it is

difficult to distinguish between the mere *post hoc* and the *propter hoc*, yet I cannot but believe, if ever I saw a life saved by a therapeutical application, that this patient's life was saved by the use of the ice in this way to the spine."

The Australian Medical Journal for March, 1866, contains a report of a case of tetanus treated successfully by the application of ice along the spine. In this case, chloroform and atrophine, three doses of each, were given; but no one reading the report will fail to be convinced that it was the ice along the spine which saved the patient. "In two hours after its application," says the report, "the spasms had considerably and decidedly diminished. . . Our entering the room caused such an excitement in the patient as to bring on all the symptoms that had been in abeyance for four hours and a-half. The application of the ice was renewed, and in twenty minutes the spasms had disappeared."

On the 24th of February, 1866, I received from Dr. Roberts, of Northallerton, Yorkshire, the following letter:—"As an old fellow-student, I have watched with more than ordinary interest your treatment of diseases by variations in temperature. Have you ever tried it in tetanus? I have a case of traumatic tetanus which has remained almost stationary for a fortnight, and I have a notion that one of your ice-bags applied to the spine would be of service. If you have any experience, I should be glad to avail myself of it, or if you have any theory on the subject, I should be glad to test it. I have given the patient belladonna and morphia, but to no purpose. The tetanus has supervened on a large scalp wound over the occiput, exposing a large-ish surface of the bone." I sent immediately to Dr. Roberts a spinal ice-bag of suitable length, also a "lumbar ice-bag," and recommended him to apply ice along the whole spine, and at the same time, by means of the lumbar-bag across the occiput—from ear to ear. I begged him not to let the presence of the wound deter him from placing the lumbar-bag as advised, and to keep both bags well supplied with ice, and applied continuously until the disease should be subdued. In reply to my inquiry as to the results of the treatment, Dr. Roberts wrote to me (May 20, 1866)—"I am glad to say my case of tetanus got quite well. I have not had time to put my notes of the case into shape and send them to the *Lancet*, but I hope to be able to do so very shortly." I regret to say this "hope" still remains unfulfilled.

In the *Medical Times and Gazette* of June 16, 1866, Dr. John W. Ogle reported a case of "tetanoid convulsions overcome for a time by application of ice to the spine." A boy two years old was brought to St. George's Hospital, at eleven A.M., February 16, in a state of general convulsions. Dr. Ogle "ordered an enema with castor-oil and turpentine to be given at once, and the gums to be examined for the purpose of seeing if they required lancing. It was found impossible, however, to open the mouth. He then ordered an ice-bag to be applied, and kept in close contact with the back, the entire length of the spine. . . Gradually the convulsions abated, and the child was considered by the apothecary well enough to be allowed to go home in the evening." On the following day, the child being "evidently not so well," was again brought to the hospital, but was placed under the care of Dr. Pitman, who prescribed grey powder, antimony and salines, and did *not* use ice: convulsions recurred, and proved fatal, February 19. Dr. Ogle, commenting on this case, observed:—"The substantial relief from the ice application was not a little interesting, and speculation upon the probability of a greater and more permanent benefit from a longer application of the ice could not be resisted."

Under the head of "Gleanings from Allopathic Literature," *The British Journal of Homœopathy*, for April, 1866, says:—"Falconer related the case of a boy, æt. 11, attacked with severe tetanus, who recovered under the constant application of ice to the spine for thirty-two days. Howard records a case of opisthotonos in a man, æt. 25, cured by ice to the spine." I have not ascertained what "Allopathic" journals these cases were gleaned from.

In The Medical Press and Circular of March 27th last, Mr. Hargrave reports a case of tetanus, in which great relief was given by ice applied to the spine, and in which a cure would probably have been effected, had a properly made spine-bag been used. The ice was applied in an ox-gullet, and during its application the patient was singularly benefited. Unfortunately, the gullet burst in the night, and ice was not afterwards applied, Mr. Hargrave being evidently ignorant that india-rubber spinal ice-bags, made under my direction, are readily procurable in Dublin. During the application of the ice, "the muscles of the lower jaw were so relaxed, that the patient could open her mouth and take some nourishment and medicine, from which," says Mr. Hargrave, "I augured favourably."

In the number of this journal for May the 8th of this year, I published a case of what I called "Tetanoid Paralysis of the Four Extremities," accompanied with swelling, ecchymoses on the feet, and extremely heightened sensibility, which was completely cured by the continuous use of spinal ice-bags.

On the the 12th ult., at the Farringdon Dispensary, I prescribed for a patient, Margaret Macgrath, aged 14, who was suffering from scarlet fever, with inflammation of the throat. The fever subsided, but on the 19th the patient came to me with the head violently twisted round, so that the face looked over the left shoulder: the cervical muscles were tense, extremely tender and sore, the tenderness extending to the shoulders, and were seemingly so swollen, that I thought, at first sight, the appearance was due to glandular enlargement. Being satisfied that the case was simply one of persistent spasm—a sequela of the influence of the fever on the spinal-cord, I ordered ice to be applied along the cervical and upper part of the dorsal spine. Within thirty minutes of the beginning of the application, which was continued two hours, the patient could move her head in any direction, and the next day all tenderness was gone.

The above statement of facts justifies, I think, my conviction that in the present state of medical knowledge our greatest chance of curing tetanus and tetanoid affections consists in the proper application of ice. I am aware that a number of cases were published in the *Lancet* a short time ago, which seemed to prove that ice to the spine is of no avail against this deadly malady. But the writer gives no particulars of his method of applying the ice, and, in the absence of these I can attach but little importance to his conclusions. It will be observed that in the case cited above, under the care of Dr. Roberts, I directed that while ice was applied along the spine, it should also be applied in a separate bag across the occiput, notwithstanding even that it had to be placed directly across a wound in which the bone was exposed. I consider the adoption of this plan in all cases of tetanus of the very utmost importance, and think it probable that in those fatal cases in which ice may have been applied continuously along the spine, it was not applied at all across the occiput. When ice is applied along the spine, and especially over what is called the cilio-spinal region, the vaso-motor nerve centres controlling the cerebral arteries are subject to its sedative influence, and, hence, those arteries become dilated, and are thus enabled to supply the encephalon with more blood than before. In this manner, as I conceive, the medulla oblongata is maintained in a hyperæmic state, at the same time that the spinal cord is subject to the sedative influence of cold. Such being the case, it is obvious that that influence may be partly neutralized by the preternatural energy of the medulla-oblongata propagated downwards; while, of course, the nerves arising from it, including the motor divisions of the fifth and seventh, and the muscles they supply, if not kept as active as they were before ice was applied at all, are, at any rate, scarcely likely to be rendered quiescent. Much, however, will depend upon the way in which the ice is applied. If, for example, it be restricted to the lower cervical and upper dorsal vertebræ (the cilio-spinal region), there will probably be a maximum afflux of blood to the head; but if the ice be continued upwards over each cervical vertebra to the base of the skull, the sedative

influence exerted on the spinal cord is likely to extend in some degree to the medulla-oblongata. The considerations here advanced afford an explanation, which is perhaps the true one, why in certain cases of tetanus ice applied along the spine has been found useless, and, at the same time, indicate that, as a general rule, when ice is applied along the spine in such cases it should be carefully kept in contact with the uppermost cervical vertebræ, and that it is always indispensably necessary to apply it in a separate bag across the occiput *simultaneously*.

The practical application of the foregoing facts and observations to the treatment of cerebro-spinal fever scarcely needs indicating: trismus and retraction of the cervical muscles when occurring in the course of that disease, should be treated in the manner just described, care being taken by incessant watchfulness that air (a bad conductor of heat) is not allowed to accumulate in the upper end of the spine-bag, or in the side next the head of the lumbar-bag placed across the occiput, and that both bags be kept well supplied with ice. If they are allowed to remain on the patient when they cease to be cold they will do positive harm ; for, as india-rubber, like air, is a bad conductor of heat, when it is applied to the skin, it prevents, of course, that passage of heat from it which would otherwise take place. This method of treating the tetanoid symptoms frequently associated with cerebro-spinal fever is fortunately calculated to subdue, at the same time, that morbid state of the cerebro-spinal axis which constitutes, so far as our positive knowledge extends, the very essence of the disease.

In those cases in which convulsions, partial or general, supervene the treatment should be the same ; for though convulsive paroxysms apart from cerebro-spinal fever may be effectually treated by ice alone the spine only, the action of the ice is always more complete and certain if, *when used during the fits*, it be applied across the occiput also ; and even though tetanus or tonic spasms of the cervical muscles may not occur in certain cases of the disease in question, there will probably exist strong reasons aginst so using ice along the spine as to facilitate the flow of blood to the brain in fuller streams than before without taking care to keep it under the sedative influence of cold at the same time. I need not enlarge here upon the efficacy of the spinal ice-bag in the treatment of convulsions, as I adduced ample evidence of its power in this respect in the paper on Epilepsy, already mentioned. I may, however, appeal to the testimony of Dr. Routh and Dr. Rogers, that in cases of both infantile and puerperal convulsions, they have found that the spinal ice-bag arrests them, and may add that I am in possession of a large number of facts proving, not only that these maladies, as well as epilepsy, are amenable to this method of using cold, but that laryngismus stridulus, ordinary night cramps, and the cramps of cholera, and those occurring in some cases of sea-sickness, may be completely subdued in the same way. I conclude, therefore, that all spasmodic, convulsive, or epileptoid affections incidental to cerebro-spinal fever may be most surely controlled by precisely the same treatment as is necessary, not only for the tetanoid group of symptoms, but for those to be now immediately referred to, and which I regard as no less significant of morbidly increased activity of the spinal cord.

In my pamphlet on Sea-sickness, and in a paper on the Sickness of Pregnancy—read to the Medical Society of London, I have developed my views concerning the pathology of nausea and vomiting, and in my work on Diarrhœa and Cholera, the pathology of those diseases, and the mode of production of an abundance of pale urine of low specific gravity, are also fully discussed, and, as experience emboldens me to believe, correctly explained. I shall, therefore, content myself here with the statement of my conviction that I have proved that nausea, vomiting, diarrhœa, and preternatural abundance of pale urine *can only occur* by virtue of a preternaturally vigorous action of the spino-ganglionic nervous centres presiding over the organs implicated, and that that excessive activity can be restrained most scientifically and most satisfactorily without the evil influence of narcotics, stimulants, or other drugs, by the use of the spinal ice-bag.

In the group of symptoms of inflammation of the spinal-cord and its membranes, I have classed, besides those just referred to, *erotic desires*, *priapism*, *subsultus tendinum*, *swelling of the tongue*, *petechiæ*, and *vibices*. It will probably be admitted at once, by each of my readers, that the first three of these disorders are expressions of disorder of the spinal-cord, and I shall, therefore, only observe respecting them, that I am assured by experience that they may be treated successfully by the spinal ice-bag, and that, if in cases when subsultus tendinum is present, the physician will apply the bag, and watch the results, he will generally be surprised and gratified, not only by the rapidity with which the affected muscles will be soothed into quiescence, but by the generally refreshing and vivifying influence which the ice thus applied exerts.

In the course of my report, mentioned above, of a "Case of Tetanoid Paralysis of the Four Extremities," I said,—"I regard the swelling and allied symptoms which took place in this child, as an example of preternatural nutrition due to excessive energy of the intensely excited spinal-cord ;" and "as, owing to the influence of the ice along the spine, the extreme spinal hyperæmia became gradually subdued, the general swelling of the little patient steadily subsided." *Mutatis mutandis*, these words apply precisely, in my opinion, to the swelling of the tongue often observable in cases of cerebro-spinal fever, as well as in many cases of epilepsy.

In the case of this child "there were also slight ecchymoses on the feet," these, as well as the petechiæ appearing in various fevers, in some cases of cholera, often in cases of epilepsy, and those, together with the larger spots (vibices) so abundant in cases of the disease in question as to give it one of its many names, I regard as results merely of the extremely intense action of those spinal nerves related to the elementary cells of the several parts of the organism, and presiding over their nutrition. I apprehend that the morbid action of those nerves in these cases is merely an excess of their normal action, and that by this excess they render the elementary cells attractive of blood from the capillary system in greater quantities than they can assimulate, and thus occasion its effusion in spots, the number and size of which are probably proportionate to the vehemence, *within a given time*, of the activity of the nervous force concentrated at the several points where it thus manifests itself. Whether, in addition to its action in this way, it also, by its preternatural power, effects a morbid chemical change in the blood immediately acted upon, is an exceedingly interesting question, which, however, I think science will probably answer hereafter in the negative. But in any case, assuming the reality of the cause here alleged, it follows inevitably that these sanguineous spots indicate no less decisively than do the symptoms already passed in review, the wisdom of applying ice along the spine.

(To be continued.)

A SHORT CHAPTER OF OBJECTIONS TO THE THEORY OF THE FŒTAL CIRCULATION,

USUALLY DESCRIBED IN LECTURES, ELEMENTARY TEXT-BOOKS, AND SYSTEMATIC WORKS ON ANATOMY, PHYSIOLOGY, AND MIDWIFERY.

By W. MACDONALD, M.D., F.R.C.P.E.,

PROFESSOR OF ZOOLOGY AND COMPARATIVE ANATOMY AT THE UNITED COLLEGE OF ST. ANDREWS.

EVER since the days of Galen, and perhaps earlier, the course of the blood in the human fœtus has been theoretically described as commencing in the placenta, and rising in the umbilical vein to the fœtus. On entering the abdomen, when closed by the meeting of the ventral lamaræ, it is said to give off two or more branches to the liver, and then to proceed to the heart, where it mingles

its supposed oxidized or arterial blood, with the reduced or venous blood, brought by the inferior vena cava from the lower extremities. The portal circulation from the liver by the three hepatic veins, enters the vena cava so obliquely, as to act as valves, preventing regurgitation. The current of this mixed blood is described as forcing its way through the foramen ovale in the auricular septum, and successively into the left auricle and ventricle, from which it is discharged by the arch of the aorta to the head and upper extremities, above the point where the ductus arteriosus is connected with the descending aorta. After the blood has circulated through the head and upper extremities, it is returned by the jugular and subclavian veins, forming the superior venæ cavæ, which pour their blood into the right auricle, in a stream which shoots through the mixed placental blood, without mixing with it, direct into the right ventricle, and by the left pulmonary artery through the ductus arteriosus into the descending aorta, at the point already noticed, carrying the venous blood to supply the viscera and lower trunk and extremities, and then by means of the iliac and hypogastric arteries, continued into the umbilical arteries, to circulate through the placenta for oxidation, thus completing a course of the blood, which is repeated during fœtal life till respiration begins. How so fanciful a theory should ever have been proposed, except in the dark ages of anatomical and physiological science, before structure and function were practically examined in the fœtus. The whole description seems only to have been derived from an acquaintance with the anatomy of the adult.

It is surprising how the great anatomists of the sixteenth and seventeenth centuries could have adopted so crude a theory, as many of them were well acquainted with the development of the bird's egg, especially Fabricius ab Aquapendente, who published a large work on the development of the *chick in ovo*, fully illustrated by wood engravings—coarse, indeed, when compared with those of the Dalzells, but equally truthful. When it is recollected that not less than ninety per cent. of all the animals living, or which have lived, are oviparous, and are fully developed, without any possible maternal connection, and that the ovo-viviparous marsupials, though developed and born within the parent, having no maternal connection, "are sent into this breathing world scarce half made up, and that so imperfectly and unfashionable" that they require to be transferred into the marsupial pouch, and there firmly fixed to the mammal teats.

Even the ovule of the human embryo for nearly a fourth of the period of pregnancy, is entirely detached from any portion of the maternal system for ten weeks after impregnation, but moves freely about in the uterus by means of its own innate power, having its oxidising and reducing circulation in full activity from the embryo to the chorion returned to the embryo. The ovule is as completely developed as in the *chick in ovo*, during the fourth and fifth days of circulation, while it is still in the Graafian vesicle. When it is at length kicked out by a *vis a tergo* from the ovisac or capsule furnished by the stroma or substance of the ovary into the outspread funbriated extremity of the oviduct or Fallopian tube, it consists of the various tunics or tissues so minutely described from the ovule of a rabbit, and figured on a magnified scale, by Dr. Martin Barry, in his valuable paper in the "Phill. Tran., 1839," part ii., p. 350, and quoted by Dr. Churchill, in his work on midwifery.

As soon as the ovule is discharged from the ovary, enclosed in its villous chorion, within which the embryo is surrounded by the germ membrane or amnion which Mr. Coste names "the germ epiderm" with its fluid, and floating in the *tunica medea* of (Bischoff) the albumino-gelatinous fluid contained within the chorion.

The human ovule exhibits the same elementary structure as in mammalia, birds and lower vertebralia, with such reduction in size and other modifications as require a special examination. From the very extraordinary minuteness of the most mature ova depending on the very small amount of Vitelline albumen around the yolk, "The ripest ovule in the ovary of the human subject and mammalia, generally does not measure more than from 1-15th to 1-20th of a line in diameter, rarely exceeding 1-10th, and with difficulty seen by the unassisted naked eye, which was the cause of its being so long overlooked or mistaken. It is only in comparatively recent times that its intimate structure and form have been studied with effect" (Wagner, p. 44). It is probable that De Gros, Prevott, and Dumas may have perceived it, but Von Bäer was the first who described it, and may be considered as the discoverer of the primary mammal ovule. He at first viewed the whole ovule as similar to the germ-vesicle of birds, mistaking the granular layer of the Graafion vesicle for the Vitelline or proligorous disc.

This was pointed out by Purkinje, who discovered the germ-vesicle, stating his belief that the ovule of Bäer was analogous to the yolk and its contents. After the discovery of the germ-vesicle in the mammal ovule, a great advance was made and announced almost simultaneously by Coste in his "Reserches sur le generation mammiferes," Paris, 1834; and Bernhardt and Valentin, "*Symbolæ ad ovi mammalium ante prægnationem*," Vralislaw, 1834. This last contains the first accurate account and faithful representation of the structure. Wagner claims "to have discovered the germ spot, and to have described and figured the whole ovule in its successive changes with greater care and sequence than had yet been done."—(Wagner, p. 44). T. Wharton Jones, in a paper read before the Royal Society in 1835, from his previous investigations in 1834 on the ova of man, in an Abstract on the Proceedings for the year, and in full in the *London Medical Gazette*, 1838.

The human ovule differs from the mammal, only in the bulk of the vitellus. There rarely occurs an opportunity of examining the human germ-vesicle in so recent a state as in the cat, dog, or rabbit, which are the best subjects for examination. As regards the early maturity of the human ovule in the ovary, prior to its reception by the oviduct or Fallopian tube, there is every reason to believe that it is so from those cases which have eluded the grasp of the funbriæ, and passed into the abdomen, and having attached itself to some part of the abdominal or visceral surface, becoming as fully developed as if it had passed normally down the Fallopian tube to the uterus, with its prepared decidual surface, which even in these cases is generally found fully expanded. There is an exceptional case mentioned by Dr. Lee. These cases also show that the chorion is not provided in the tube, as the chorion villi are the means of fixing the ovule to the maternal surface, like a parasite worm which derives its support without any connection with the maternal circulation, but entirely from its innate vitality. This abnormal human extra uterine ovule, having attached its villi and the accompanying capillary vessels, readily supply what was described by Hunter as the decidua reflexa, and probably something like a placenta may be at last formed on the visceral surface, as in the usual uterine gestation where the reflexa and scrotina are described.

Returning to the normal progress of the human ovule, the earliest described, and figured by Velpeau, and quoted by Churchill in his Midwifery, was an aborted ovule from an acoucheuse of not more than fourteen days after impregnation. He describes the whole ovule as not more than one-third of an inch in diameter, including the chorion villi, and in his enlarged figure both the chorion amnion and its enclosed embryo, attached by the blastine arteries, are clearly distinguishable. Churchill describes and figures this case. Wharton, Jones, and Allen Thompson have described earlier aborted ova. These must all have been discharged from the uterus. In the usual cases of pregnancy the embryo continues moving about in the expanding cavity of the uterus, till the end of the tenth week after impregnation, and it is not before the end of the twelfth week, when three months of pregnancy have passed, that the placenta is completed. It is surely incorrect to describe the circulation as commencing there and rising in

the umbilical vein, while it has been all the time for twelve weeks in full action in the vittello-embryonic circulation within the ovule. Allen Thompson describes the *atrium cordis*, or primitive auricular heart, as discharging its first contents of "pale orange or yellowish fluid," (probably the liquor sanguinis or plasma) the punctum saliens indicating the contraction of the heart, by which this fluid is discharged through the only efferent vessel, the ductus venosus, to circulate among the venous blood discs on the upper vascular network to the terminal sinus, from which there is a fringe of minute capillary vessels connected with it, by means of which the plasmas is brought within the influence of the villa and at once oxidised, the capillaries forming the terminal branches of the vein, and the rootlets of the vascular area external to the visceral or mucous lamina, gradually forming larger and larger tubes, till at length, in the case of the bird, the right and left blastine arteries from each half of the vascular network are continued by the hypogastric and iliac arteries into the corresponding aortæ upward to the arterial aortic bulb. In the human embryo, however, the iliac arteries, after supplying the lower extremities, unite over the lower part of what becomes the lumbar vertebræ, and forms the single abdominal aortœ from which, in its ascent, it gives off the following important arteries :—

1. The inferior mesenteric artery is distributed to the mesocolon and large intestines, when these are developed, and then from the lower part of the centro-chord, the future spinal axis, to the Wolffian bodies, onward to the Allantois, as a membranous diverticulum sanguinis largely expanded external to the fœtus amid the albumino-gelatinous fluid named, by Bischoff, tunica media, in the space between the amnion and chorion, while the abdomen is open with a wide sinus, which becomes narrowed into a mere cord, returning in the umbilical cord, continued down behind the bladder as the urachus, and mistaken as a part of the urinary system. The outer surface is well supplied with arteries and veins, by which the diverticular function is performed, while in the tunica media, often extending near the chorion, but without any connection with it, or assisting the oxidizing the venous blood, sometimes incorrectly attributed to it, its recurrent blood is returned by the *inferior* mesenteric vein as one of the tributaries to the portal sinus in the longitudinal fissure of the liver.

2. The superior mesenteric artery supplies the mesentery and small intestines when developed within the viscero-mucous lamina of the germ-disc, forming the very vascular membrane of the umbilical vesicle enveloping the non-vascular structureless membrane of the yolk connected with a loop of the intestine, into which it is finally drawn ; before that occurs the yellow globules forming the inner layer of the umbilical vesicle, as pointed out by Robin, within the vascular umbilical vesicle spreading out by a wide sinus, while the abdomen is open, becoming largely expanded in the tunica media, as the second diverticulum sanguinis, its recurrent venous blood returns within the abdomen at length, by a narrow neck inclosed in the umbilical cord; the blood having been poured into the superior mesenteric vein forming with the inferior mesenteric vein, another tributary to the portal sinus.

3. The cæliac axis distributing the gastric and splenic arteries, becomes the permanent diverticulum sanguinis discharging its venous blood by the splenic vein behind the pancreas, into the great mesenteric vein to form the portal sinus in the longitudinal fissure of the liver, and which, in the transverse fissure, divides into right and left portal veins to circulate in the different lobes in company with branches of the hepatic artery, one of the divisions of the cæliac axis. The recurrent venous blood from the liver returns by three hepatic veins into the upper and anterior part of the inferior vena cava below the diaphragm, so obliquely as to act as valves preventing regurgitation.

As soon as the aorta reaches the diaphragm, it enters between the crura, giving off the phrenic arteries, and then dividing into a right and left main trunk as in birds, one on each side of the centro-chord or spinal axis, as high as the fovea cardiaca (wolff) or pharyngeal den. At a point before the cervical column, each of these main trunks subdivides into two branches, which proceed forward on each side behind the heart, to enter the arterial aortic bulb. These have been mistaken for the branchial arteries, being equal in number and in a similar locality, but were shown by Reichert to have no connection with brancheæ, but as if to show the tenacity of early prejudice, even in great men, he still declares them as the homologues of the branchial arches.

These aortic branches, passing behind the heart, meet from each side, and communicate with the arterial bulb, from which the right and left subclavian and carotid arteries ascend to supply the upper trunk and extremities, the head being supplied by the external and internal carotids. The recurrent venous blood from these regions by means of the jugular and subclavian veins form the superior venæ cavæ, in conjunction with the veins from the azygeal sinuses of the spinal column. The whole venous blood of the upper body and extremities, is collected in the right auricle, where it meets the blood in the inferior vena cava, brought from the lower part of the trunk and extremities, having also received the portal circulation. From this point below the diaphragm, the whole venous blood of the embryo is sent by the ductus venosus to the terminal sinus, and after being oxidized under the influence of the chorion villi, is distributed on the lower rete vascular layer, to form the blastine arteries, which complete the embryonic circulation, during the first three months of pregnancy, after which time the ovule being grounded, as it were, on the decidual surface of the uterus, the chorion villi with the capillary area being concentrated on a circumscribed part of the uterine surface, become shortly included in the spongy mass of the uterine portion of the placenta, consisting of cells and sinuses which subsequently are described as lined by the inner membrane of the maternal curling ateries, which is continuous with the lining of the maternal veins, by which the blood is restored to the maternal system, never communicating with either the uterine decidual circulation or the fœtal circulation, whose branching chorion villous tufts are merely bathed in the placenta-sinuses, lined by the inner membranes of the maternal circulation. In point of fact, it would seem that vascular system, both of arteries and veins, is really a continuous closed tube, only allowing the changes of oxidation and reduction in the capillary area, by means similar to endosmose or exosmose.

Having shown, on the authority and diagram of Wagner, Muller, Carpenter, Van Bäer, Martin Barry, Allen Thompson, and others, that the circulation in the embryo commences in the venous side of the heart or auricle, which has only a single efferent tube—the duchis venosus, which ultimately becomes the umbilical vein of the fœtus, and that there are two inferent veins from the azygeal sinuses, filling the single cavity of the atrium, or auricle, after its first yellow plasma is discharged for the first vitello-embryonic circulation, but which are immediately, on the second embryonic circulation, received by the left branch of the vena cava superior, and thus the venous blood from the region of sinuses of the spinal axis is collected into the general mass of the venous blood in the heart, whether it consists of a single auricle, as at first, or after the ventricle is formed on the opposite side of the base of the heart, which then becomes the auriculo-ventricular septum, with ventricular orifices; or still later, near the full period of pregnancy, when the ventricle has been divided by a septum into right and left ventricles, and the auricular septum has been formed, leaving the foramen ovale to allow the passing and repassing of the venous blood to or from the ventricle into the auricle, that it may escape by still the only outlet—the ductus venosus, to the umbilical vein, which carries the blood by the full muscular action of the heart to the chorion branching villous tufts, in which, in fact, the oxidation of the blood continues till respiration expands the lung-cells.

Prior to this, there is no communication between the arteries and the cavities of the heart in any condition, whether a single or quadruple cavity, the systole of the auricle forcing the blood into the ventricle, which immediately contracts with its whole force, tilting up the apex, and giving the pulse-beat, when felt in the cord, in cases of prolapsus, or during turning, of from 60° to 70° per minute, while stethoscopically examined through the maternal abdomen it often ranges as high as from 120 to 150. May not the above explain how the difference occurs, the whole strength of the pulse-beat depending on the tilting of the apex of the heart, as in the adult? and only felt in the umbilical vein, in which the whole blood is sent from the heart prior to respiration.

Adopting the data afforded by Wagner, Muller, Carpenter, Van Bäer, Martin Barry, Allen Thompson, and others, as stated and figured in the various elementary and systematic text-books familiar to medical students, I sum up in the four following objections that the usual descriptions of the fœtal circulation as erroneous.

I. Anatomically:—

1st. By tracing the course of the umbilical vein from the placenta, which is not completed prior to the end of the third month of pregnancy, when one-third of the period has passed, and the vitello-embryonic circulation having been in full activity within the chorion of the ovule during that period.

2nd. By describing the giving off of two or more branches from the umbilical vein direct to the liver, when there is no direct communication with the vein, and the portal blood of the liver being entirely supplied by the mesenteric veins.

3rd. By describing the structures in the heart which are not developed till considerable progress has been made.

4th. By describing the aorta and pulmonary arteries as communicating with the ventricles prior to respiration, which is not the case, as the whole arterial system is unconnected with the cavities of the heart, but only with the arterial aortic bulb, which Wagner describes as pinched off from the base of the heart.

5th. By mistaking a small remnant of the aortic primary branches in the embryonic condition for the ductus arteriosus as conducting the venous blood from the right ventricle to the descending aorta.

II. Physiologically it is still more erroneous:—

1st. By assuming that the oxidised or arterial blood flows from the placenta after it is completed by the end of the third month (12 weeks) by the umbilical vein, which, after entering the abdomen, sends this blood by two or more branches to liver, which is both anatomically wrong, as already shown above, and also physiologically. The liver is an organ which prepares the blood for oxidation, whether by the placenta—the branchiæ of fishes, or the lungs of the breathing animals—except a branch of the hepatic artery for the growth of the organ, the liver is entirely supplied by the portal circulation derived from the mesenteric and splenic veins which, accompanied by branches of the hepatic artery, is at length poured into the upper part of the inferior vena cava by three hepatic veins, entering so obliquely as to act as valves, preventing regurgitation when the whole force of the heart propels the whole venous blood down the umbilical vein to the chorion, and subsequently to the placenta, when completed.

2nd. By describing the mingling of the pure blood with the reduced venous blood brought by the inferior vena cava (and, of course, the portal blood from the liver), and then stating that this mixed blood is forced through the *foramen ovale*, before a septum is formed into the left ventricle—the whole course assumed after this is impossible, as the ventricle has no connection with the aorta.

3rd. By describing the arterial and venous blood as mingling in the heart, while it will not be denied that the only communication between veins and arteries for *oxidation* is in the capillary area, and the only communication between arteries and veins for *reduction* is also in the capillary area, where all material changes in the constitution of the blood, if not entirely at least principally, are completed. It may fairly be asked—What is the use of oxidizing the blood, if it is to be rendered impure before it is applied for the development of the embryo? Such a scheme or theory, never supported by evidence or fact, ignores all physiological laws, and would at once bring the circulation to stagnation and a dead lock.

4th. The described and adopted course of the blood in the aorta is too complex, requiring, in the language of these railway days, too many switches to be attended to in directing blood up the arch of the aorta from the left ventricle, and from the right ventricle, down the same tube, the descending aorta distributing the impure venous blood to the trunk, the lower extremities, and viscera, before returning to the placenta.

III. Physically it is inconsistent with the laws of hydraulics to suppose that the fluid could rise in a tube higher than the surface, unless by the force of gravity or mechanical compression. Were a physicdist to place a glass tube in a glass vessel containing a red fluid, without any mechanical aid, and to expect that it would not only rise in the tube, but stem a current down the same tube, propelled by a powerful contracting force. Such a statement would at once be declared nonsense, and impossible. Yet this is what the prejudices in favour of the three hundred year old theory maintains—that the placenta, without any muscular or mechanical force, sends its blood by the umbilical vein, contrary to the current sent by the whole force of the heart from the auricle, by the ductus venosus, as the first part of the umbilical vein, with the whole venous blood, to the placenta to be oxidized.

IV. The received theory of the fœtal circulation is inconsistent with the course of the blood when examined during the development of the embryo in the ovule, as above described from the works of embryologists and microscopists, and during the more advanced progress of the fœtus after the placenta is completed, prior to the inflation of the lung-cells by the first inspiration, when the whole course of the blood is instantly changed, and the old apparatus immediately dispensed with.

The researches of Van Bäer have shown that both venous and arterial blood-discs, as well as blood-vessels, pre-existed the heart, as formed by the torsion of a vein, and the circulation first set in motion by the pulsation of the heart, indicated by the punctum saliens forcing the yellow plasma or liquor sanguinis over the venous layer of the rete vasculosum to the chorion, from whence the circulation is continued among the red blood-discs on the arterial layer of the vascular area to the embryo, to be circulated upwards to the arterial aortic bulb, distributing its nutrient oxidised blood in its ascent from the lower body and extremities and the viscera, till it reaches the arterial aortic bulb, from which the upper trunk-extremities and head are supplied by the subclavian and carotid arteries. The recurrent venous blood from all regions of the body being collected in the heart, is again propelled by the whole action of auricles and ventricles through the duches venosus, still its only outlet into the umbilical vein, *en route* to the placenta, for oxidation, thus completing a round of the fœtal circulation; and as the first circulation had been anticipated by the pre-existence of the blood-discs and vessels, so the circulation required after respiration begins, the whole apparatus has been prepared for an instant change of the arterial connections by the breaking up of the arterial aortic bulb, the pulmonary arteries from the upper part to the right and left, and the aorta from the lower part, rising between them, and bending over the left pulmonary, to form the arch of the aorta now distributing the whole oxidised blood throughout the body without much change till it passes through the capillaries, where alone the reduction of the blood occurs.

I humbly feel convinced that the theory now proposed is more rational than the old theory of three centuries, and still obstinately persisted in; and that it affords the true key to the whole fœtal circulation by the entire separation of the arteries from the

cavities of the heart. All respiration commences and connects the cavities of the heart, whether consisting of one or four divisions, entirely and solely with the venous system, by the ductus venosus and umbilical vein. This cannot be viewed as a discovery at all to be compared with the great Harveian discovery, but in the correction of a long prevalent error, it has the merit of at least capping and culminating it, on the principles of the immortal Harvey, who had overlooked it as completing his own. I feel convinced that till it is adopted there is little chance of any correct view of the fœtal circulation being entertained.

Having been challenged by more than one eminent physiologist to adduce evidence experimentally in disproof of this old theory, which never was established on practical experiment or demonstration, nor during the three centuries of its predominance, I hold that it is with the supporters of that theory that the *onus probandi* and *experimentaliter demonstrandi* first lies, and I throw down the gauntlet to any one of the eminent anatomists, physiologists, or embryologists in the numerous medical schools of the vast metropolis or elsewhere, to adduce a single fact resting either on direct observation or experiment, showing the course of the blood from the placenta by the umbilical vein to the heart of the fœtus; or that the venous blood returns by the aorta and umbilical arteries in the cord to the placenta for oxidation. Till this is done, I feel no necessity to adduce any other than theoretical inference on the general physical and organic laws against the old theory of the fœtal circulation, now shown to have been based on false anatomy, and quite inconsistent with the known physiological laws regulating the course of the blood from veins to arteries and from arteries to veins can only occur in the capillaries, and that it is also inconsistent with the physical laws of hydraulics. At the same time, I will endeavour to bring the subject before the next meeting of the British Association at Dundee, and urge the appointment of a small committee to investigate this very important subject, and report; and if I do not succeed in getting an allocation of money towards the expense of the examination, I will subscribe my share along with the members of the committee.

PURPURIC DISEASE AFFECTING SEVERAL PERSONS AND A PIG AT KINGSTON, NEAR HEREFORD.

By Dr. LINGEN, of Hereford.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—I beg leave to send you notes of a remarkable case of purpuric disease affecting the human subject and the pig in the same locality, kindly furnished to me by Dr. Lingen, of Hereford. The attention which this form of malady has attracted as an epidemic and epizootic in this country recently makes all connected with it of special interest. It points to a wider area of morbific influence when we find the disease exemplified nearly simultaneously in localities far asunder, and, for this reason, it would be well if gentlemen in the provinces, here and in England, would kindly favour us with brief notices of such cases as may present themselves in their localities.—Faithfully yours,

8, Merrion-square, West, July 27, 1867. R. D. LYONS.

Rough notes taken 11th July, 1867.

The pig, eight months old, had been in the possession of Mrs. Seal five weeks; was bought and reared in the village (Kingston).

Taken ill about 18th of May, and was killed, because considered to be dying, on the 30th. Was first observed to be "stiff," then drowsy, and so continued most of its time, never exhibiting *any* excitement. On the second day distinct purple spots appeared in abundance on the belly and inside the thighs, then on the back, and a little on the sides; lastly on the nose and face; the animal had a peculiar odour; lived about nine days, taking very little food (never sick); was generally warm, though it often shivered during the first few days, less towards the end. It was killed when too weak to get up or stand; it was remarked that its blood did not coagulate. Two other pigs cotted with it to nearly its death, did not take the disease.

C. Powell, deceased, carried it to its grave, and buried it. The pig was not opened.

Servant girl, Mary Davis, æt. 16; first ill about 18th of May. She often went to the pig, but did nothing for him; was taken with slight chill, very drowsy, and severe headache; skin very hot, not red; no spots; much sweating for several days; was weak, but not so weak as to keep her all day in bed; for the nine or ten days she remained at Mrs. Seal's, when she went, in an open gig, to her own home, a distance of six miles. Remained at home ill a month, and then returned—scarce up to her work, and at this time, two months from the attack, looks feeble and anæmiated.

Mrs. Seal, the landlady, who often visited the sick pig, whose cot was *close* to her back door, was taken ill about the 31st May, two days before Mary Davis left with dry retching, often very faint; pain in both temples, neither constant nor very severe; generally drowsy day and night; tongue said to have been dry and not furred; she had great thirst; skin always hot, whether perspiring or not; "felt very hot inside;" eventually much sweating by day, and especially at night; bowels always regular.

Had a very large purple spot on the loins, one not so large, on the outer part of the thigh, others smaller, in various places. Nails and finger ends often purple, but not cold.

The most marked symptom was great pain in right upper arm to the elbow, scarcely implicating the joint itself; this was severe at first, and kept on nearly a month, being red most of the time.

The cowman, late Chas. Powell, æt. 46, who was not in strong health, but in his ordinary condition. It was he who carried the pig a hundred yards to his grave, and buried him. He was taken ill the next day (30th May), with drowsiness, severe headache, and very great pain in right upper arm, which was red, altogether similar to that of Mrs. Seal. Pain in the arm continued severe till the day before he died, on which day, Saturday, Powell walked in to Hereford, six miles, to see Mr. Lane, his usual medical man, and walked (with difficulty) much of the way back. While in Hereford, he drank beer and brandy, and was much confused at his visit to Mr. Lane; was restless all that night, complaining of pain in the bowels (no purging), and next morning (2nd June), at 6 A.M., went to the house of a Mrs. Powell, near Mrs. Seal's, where he sometimes lodged, saying he was going to die, and there sank at 9·30. Arm then red and swollen, but free from pain.

An inquest held next day on the body, before Mr. Lanwarne, but nothing especial transpired that I have not recorded.

The old woman, Mrs. Powell, in whose house C. Powell died—taken ill same day—was sick, and had vertigo, and felt "curious;" ailing and weak for a fortnight, but not so as to lay by; had thirst and loss of appetite; no purging.

Mrs. Seal's son herded the pig constantly, but was not ill at any time; he was, however, much in the fields, and away from home by day.

The pig's cot and yard were encumbered with manure, and the drains in a bad state.

It is to be observed, I saw one only of these cases—Mrs. Seal's—and her not until she had been ill a fortnight. It is now a month since Mrs. Seal first came to me; she is still weak and thin, and needs constantly porter, wine, and quinine.

Exclusive of the old woman, in whose house the only fatal case died, and the pig, there were three patients apparently affected more or less seriously by the disease. The man, C. Powell, who visited the pig daily and buried him; the young servant, Mary Davis, who had an illness of six weeks (neither had purple spots) and recovered; and the landlady, whose illness is scarce over yet. C. Powell was attacked on the Thursday evening with diarrhœa and

severe pain in the arm, and died at 9.30 A.M., Sunday. The girl, Davis, had no spots at all, and was generally pale rather than red, though her skin felt *hot*. C. Powell had no well-attested spots, but the lower two-thirds of his arm were red from the first. Mrs. Seal had many distinct purple spots, and her arm seems to have been similarly affected to that of C. Powell.

The sweating was very marked and long-continued in Mrs. Seal's case—less so in the girl's, and still less in C. Powell's.

In all, headache, though present, was only moderate; and in all, thirst was marked, and prostration was moderate. In C. Powell's case only was diarrhœa present, and in that, only for the first day. No hæmorrhagic symptoms in any of the cases, and only in Mrs. Seal's case do we hear of lividity of the finger ends. Contagion is not strongly indicated, inasmuch as the associates in the cot of the pig did not take the disease, and Mrs. Seal's son, who attended much on the pig, was not infected. The young girl, though she took the disease early, did not give it to her relatives at home. Again, though Mrs. Seal had others residing in her house, and kept a much-frequented public, no one else in or out of it seems to have taken the infection. True, the old woman in whose house C. Powell died became ill, and remained ill a fortnight, yet her symptoms were not very strongly marked.

A STATISTICAL REPORT OF 570 CONSECUTIVE CASES OF MIDWIFERY ATTENDED IN PRIVATE PRACTICE.

By JOHN DICKIE, M.D., L.R.C.S.E.

DURING the last five years—namely, from 1862 to 1866, I have registered 570 cases of midwifery, and have kept brief memoranda of the principal incidental occurrences. I propose, in what follows, briefly to analyze the series, which I present, in first place, in the form of a table:—

Date of attendance ...	1862.	1863.	1864.	1865.	1866.	Totals.
Number of cases ...	109	118	124	96	123	570
Sex of child ...	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
	60 49	62 56	66 58	48 48	62 61	298 272
Presentation of head ...	104	112	122	92	119	549
,, breech ..	2	3	1	2	1	9
,, feet ...	0	1	0	1	0	2
,, arm ...	1	0	1	0	1	3
,, face ...	1	1	0	0	0	2
,, placenta ...	1	0	0	1	1	3
,, funis ...	0	1	0	1	0	2
Delivery by forceps ...	11	12	10	14	8	55
,, craniotomy ...	0	0	1	0	0	1
,, turning ...	2	0	1	1	2	6
Cases of twins	1	0	0	3	0	4
,, ,, still-births ...	3	4	4	3	1	15
Mortality to mothers ...	0	1	0	0	0	1

Of these 570 labours, 110 were primiparous and 460 non-primiparous. The total number of childern born was 574 (there being four cases of twins); of these, 300 were males and 274 females. Only one mother died from the accidents of the puerperal state; still-births amounted to 15; the forceps were employed 55 times, and mal-presentations numbered 21. I shall briefly offer a few remarks explanatory of the above figures.

Forceps.

One striking feature in my practice appears to be the large number of forceps cases—55 in 570, or 1 in 10, certainly a very unusual percentage—and from this circumstance, one might suppose, I have not been sufficiently impressed with the maxim that "a meddlesome midwifery is a bad midwifery." My conviction is that this standing rule is calculated to do much mischief; for, on referring to my notes, I find that in no single instance was the use of the forceps followed by bad consequences either to mother or child. This fact speaks for itself. I have discontinued the use of ergot, for I found that invariably the forceps had to be resorted to, after all, to complete the delivery. In all cases where the labour is lingering, and the maternal parts sufficiently prepared for their use, I employ the forceps with every confidence, especially in primiparous cases, and am firmly convinced their timely use has enabled me to shorten the sufferings of the mother, and in some instances save the life of the child, two very important points in obstetric practice. My impression is, that were midwifery practitioners more in the habit of using the forceps, fewer accidents would follow what appear to be quite natural cases.

Still-Births.

The table also brings out the important fact that still-births are below the average—15 in 570, or about three per cent.; of these eight were putrid at birth, one destroyed by craniotomy (it was an extraordinary large child in a first pregnancy), three deaths are explained by placenta previa, one by funis compression, one hydrocephalic, and one was an anencephalous monster, the head of which appeared to be a large fleshy protuberance from the upper part of a well made body, there was no neck, and the extremities terminated in round fleshy knobs, instead of hands and feet; it was born in the seventh month.

Placenta Previa.

The cases of placenta previa were three in number—two partial, which I managed by simply rupturing the membranes, and leaving the cases to nature; one complete, which I treated by tearing through the placenta, turning, and bringing down the feet; the children were dead, but the three mothers made good recoveries.

Mortality to Mothers.

Very favourable—1 in 570. The case was a natural delivery in a second confinement. Acute peritonitis set in on the fifth day, and proved rapidly fatal. I attributed the attack to an indiscretion on the part of the patient.

Flooding and Retained Placenta.

The absence in the table of post partum hæmorrhage and retained placenta complications is worthy of notice. Not once has there occurred a case either of decided retention of the placenta, or severe flooding. Possibly my method of managing the third stage may have contributed to this result. In every case, immediately after the expulsion of the child, I grasp the womb firmly with my left hand, while, at the same time, I stretch the funis with my right, and keep it on the stretch until separation takes place. As a rule, the after-birth is expelled shortly after the child.

Rupture of Funis.

I had one case of rupture of the funis, which might be recorded. The string encircled the neck three times, and while I was endeavouring to get a loop over the head, a strong pain sent the child into the world with a jerk. The cord was completely torn out at the umbilicus, and some difficulty was experienced in arresting the hæmorrhage, but a well-fitting compress, and plenty of the powdered matico, proved quite successful.

Hospital Reports.

SPECIAL REPORT ON THE TREATMENT OF UNUNITED FRACTURES.

No. I.*

CASES are continually occurring, in which several modes of treatment have proved incapable of securing bony union after fracture, and many questions will naturally arise in the minds of surgeons as to the best mode of proceeding. These cases are often the cause of great disappointment and anxiety, and although not of every day occurrence, yet they are so full of interest that we propose, in a few brief articles, to give a clinical review of the whole subject. There can be little doubt that a considerable proportion of these cases originate in the part having been too frequently subjected to motion, so that a false joint is formed, or, at the least, mere bands of fibrous tissue, in which no ossific deposit has

* Gentlemen who may be willing to furnish reports of cases of ununited fracture to be included in this special report, will oblige by forwarding them immediately to the Editor of the Hospital Report Department, 20, King William-street, Strand, London, W.C.

taken place, form the only union. In these cases the ends of the bones are not unfrequently covered with a synovial-like membrane, and a capsule may even be formed around the injured part.

But, besides this local cause, non-union may originate in a depraved constitutional state. Mere debility is said to be capable of giving rise to it, while syphilis, phthisis, gout, cancer, and other constitutional diseases are frequently mentioned as obvious causes. Pregnancy and lactation have each also been blamed for this occurrence. So febrile diseases, while they last, are said to be unfavourable to union, as also is paralysis of the limb in which the fracture has taken place. A state in which there is deficiency of calcareous matter in the system would naturally enough be likely to hinder bony union. Age seems to have but slight influence. If we fairly weigh all the constitutional causes that may determine non-union, we shall easily be led to admit that they alone do not suffice to account for the results of practice. We are, therefore, driven back to notice the local peculiarities. How important these may be, is palpable enough in the history of numerous cases. Thus, instances have been recorded in which a small portion of the soft tissues being interposed between the fractured extremities of the bone, has sufficed to prevent union. Another cause of non-union, strictly local, and in one sense accidental, is the vascular supply of the fractured ends. The anatomical position of the injury may not only determine non-union, but also necrosis. Each fragment must throw out callus to repair the damage. But it may happen that the fracture has taken place in such a position, that the vascular supply of one end is more or less impeded or cut off, and this insufficiency of blood must result in insufficient or imperfect callus being formed. Rupture of the nutrient artery at the seat of fracture is probably a frequent cause of the non-union in the shafts of the long bones. Insufficiency of arterial supply may also be debited with the fact that intra-capsular fractures almost always unite by fibrous tissue only. What bony union does take place, is derived from the callus poured out by the shaft. To the same fact also is due the frequent occurrence of necrosis of the detached head.

The treatment has been as varied as the obstinacy of the cases has suggested. It is perhaps natural, that in all cases mere apposition of the parts, all motion being prevented, should first have a full and fair trial. Splints or starched bandages for such purposes are commonly applied. The only risk attending them is, that the anxiety of the Surgeon to secure perfect approximation, and even pressure of the broken ends against each other, may lead him to bind so tightly as to interfere with the circulation of the limb. This, where any cachexia exists, is commonly combined with constitutional treatment, which, judiciously prescribed, is likely to be beneficial. A tonic course, good diet, and cod-liver oil, have undoubtedly promoted union in phthisical patients. If deficiency of calcareous matter be believed to exist, an attempt may be made to supply it by diet or medicines. For this purpose lime-water has been a favourite remedy. The various phosphates will suggest themselves as most appropriate. The mere supply of habitual stimuli that have been interrupted has been successful. More active medication has been resorted to, in defence of which cases have been related in which salivation was followed by bony union.

Of operative procedures, the first to mention is the subcutaneous section of the ligamentous bands. Some go so far as to leave probes between the ends of the bones for several days. By this method a simple is, as it were, converted into a compound fracture. More grave still is the passage of a seton through a false joint, as this may give rise to fatal hæmorrhage, erysipelas, or some other dangerous complication.

Complete excision of a false joint is an operation of a most dangerous kind, and only justifiable after all other means have failed—or, where there is hope, that it may be a lesser evil than amputation.

Dieffenbach's ingenious method of driving ivory pegs into the fractured extremities of the bones has been extensively practised with varying results. It is only suitable, for the most part, in fractures of the femur and humerus. It is, of course, an operation not to be lightly undertaken, but, from its results, perhaps the most available of any which we have named. It is, at any rate, in the hands of an average surgeon, free from the danger of wounding an important artery, which is more than can be said for the seton, or for subcutaneous section.

A few years ago the above might have been said to have comprised all the modes of treatment in common use. But in 1859, M. Ollier published *(Gazette Medicale)* a series of experiments on the production of bone from the periosteum. The following year, Sedillot and Jordan seem both to have availed themselves of these investigations, and to have commenced a plan of operating, the success of which entirely depended on the power of the periosteum to produce bone. About the same time, and evidently without communication, Bigelow proceeded in a similar manner in the United States, and he has continued to operate on this principle with remarkable success. In our next number we propose to enter fully into the method of treatment adopted by Bigelow, and of which the following table exhibits the results :—

Case.	Bone.	Causes of Injury.	Duration.	Wire Remained.	Result	Remarks.
1	Humerus.	Arm caught in a splitting machine.	3 yrs.	4 mos.	Well.	*Seton; blisters; rubbing ends of bone together; excision of ends of fragments.
2	Radius.	Arm caught in machinery.	4 yrs.	2 yrs.	Well.	
3	Humerus.	Arm caught in a hand-car crank.	8 mos.	6 mos.	Well.	*Rubbing ends of bone together.
4	Humerus.	Arm caught by a revolving shaft.	1 yr.	2 mos.	Well.	
5	Femur.	Crushed by a heavy team.	20 mos.	5½ mos.	Well.	*Blisters; seton; drilling ends of fragments twice.
6	Humerus.	Gun-shot wound.	11 mos.	5 mos.	Well.	
7	Humerus.	Compound fracture.	18 mos.	4½ mos.	Amputation.	Softening of the bone.
8	Humerus.	Arm struck by a falling elevator.	5 mos.	4 mos.	Well.	*Drilling ends of fragments.
9	Humerus.	Crushed by wheel of hand-car.	1 yr.	4¼ mos.	Well.	
10	Humerus.	Gun-shot wounds.	5 yrs.		Well.	*Excision of ends of fragments; excision of ends and wiring fragments; two operations by Dr. Bigelow.
11	Humerus.	,, ,,	2½ yrs.	4 mos.	Well.	*Excision of ends of fragments.

*Previous operations which had failed.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

SURGICAL RECORDS,

By WILLIAM STOKES, Jun.,

SURGEON TO THE HOSPITAL; LECTURER ON SURGERY, CARMICHAEL SCHOOL.

STRUMOUS DISEASE OF THE ELBOW-JOINT OF NINE MONTHS' STANDING: SUB-PERIOSTEAL RESECTION OF THE ELBOW-JOINT BY THE VERTICAL INCISION OF PARK: AFTER TREATMENT BY THE GYPSUM BANDAGE AND THE CONTINUAL BATH: CASE PROGRESSING FAVOURABLY.

THERE can be little doubt that of the articulations for disease of which resections are now so frequently practised, the elbow-joint must be held to be the one which is

specially suited for this operation, inasmuch as unfavourable results are of such rarity, and also from the fact that the operating surgeon is now in a position to expect, with good reason, not only the subsequent attainment of perfect flexion and extension in the joint, but also a re-formation more or less complete of the removed osseous structures which, in the great majority of cases, undoubtedly can be attained, either by careful preservation of the periosteal fibrous envelope, or, when it is possible, by the method of *évidement*, which has been recommended in preference by the eminent Strasbourg Surgeon, M. Sédillot. A glance at the table of 333 cases of excision of the elbow-joint which have been collected from various sources, and published in the "Archives of Clinical Surgery," vol. vi., 86, by Dr. Dontrelepont, will at once satisfy the most sceptical surgeon in regard to the great rarity of unfavourable results in these cases. They are as follows :—

In 333 cases—

Death	40, or 12 per cent.	
Amputation	14, „ 4·2	„
Anchylosis	23, „ 6·9	„
Mobility	256, „ 76·87	„

In truth, the operation very seldom indeed terminates fatally, and when it does so, it is from pyæmia or other causes, which are common to all operative procedures. The only instances which have fallen under my observation, and which terminated fatally, were two. One in which there was acute inflammatory disease in the joint at the time of the operation, and the other was one in which the operation was performed—I may add, not in this country, to our credit be it said—for no disease, but for a congenital malformation of the elbow, which impeded, to a certain extent, the natural motions of the joint. In this latter case the patient died of pyæmia on the eighth day after the operation.

The particulars also of the case of C. Waddick, whose left elbow joint I excised, and the account of which I published in the *Dublin Quarterly Journal* for May, 1865, fully bear out the truth of the statement made above in regard to, not only the possibility but probability of obtaining subsequently perfect mobility in the new joint. The patient now enjoys every motion in the elbow that the healthy joint possesses, perfect power of flexion, extension, pronation, and supination. The osseous reformation also is very remarkable. Encouraged by the success attained in this case, and which I have seen in many cases equally well attained by other surgeons, I determined to give the patient, whose case I am about briefly to record, the chance of obtaining, by similar means, the possession of a useful arm, and, as far as the case has gone, though in many respects an unfavourable one, owing to the large amount of disease which was found external to the joint, it promises to fulfil these not too sanguine expectations.

Catherine Ryan, æt. 8, a child of very delicate strumous temperament, was admitted, under my care, into the Meath Hospital, on the 24th of last June. The right elbow, which was evidently the seat of very extensive scrofulous disease, had been affected for upwards of nine months, and had commenced, according to the account her parents gave, apparently without any local exciting cause. The joint was enormously enlarged, the result apparently not so much of any extensive effusion as of great thickening and hypertrophy of the synovial and other soft structures. Though, in truth, in all such cases, when the disease is extensive, it is difficult, if not impossible, to define accurately what parts are chiefly affected. The integuments, especially on the posterior aspect of the joint, were much disorganised, and in three or four places had ulcerated, and, through the sinuous openings in these situations, oozed continually a thin, sanious, unhealthy-looking, purulent discharge. Through only one of these sinuses was I able to satisfy myself of the existence of diseased bone, namely, through the one situated over the head of the ulna. The patient did not suffer much pain in the joint except when it was moved. All power of flexion and extension was completely and entirely lost, and, in truth, at first sight, it was quite obvious that in the treatment of the case, looking at the large amount of disease that was present, the question to determine should be whether it was one for which the operation of amputation or excision should be performed. The latter I determined on, as being beyond all question the preferable alternative, having stated, however, previous to the operation, that should I find the amount of disease too great to justify resection, I should then have recourse to amputation of the arm. The operation, which was performed on the 25th of last June, was done in the manner I have frequently advocated, namely, by the vertical incision of Park, taking especial care in detaching the soft parts from the bones, to remove along with them, by some of the various ingeniously constructed instruments for the purpose, the fibrous envelope or periosteum. The advantages which I have pointed out as accruing from the adoption of the vertical incision are, first, that the suppurating surfaces are necessarily less in extent than when the ordinary H. incision is made, and that consequently the chances of rapidity of healing will be increased if the opportunity for suppuration be diminished. Secondly, that the numerous muscles in the neighbourhood of the elbow-joint are not divided transversely, and that, consequently, there can be no transverse cicatrix in their tissues, which would, in all probability, impede their action subsequently; and lastly, we avoid, by the vertical incision, the formation, of a transverse cicatrix, which, when it exists, impedes certainly the extension and flexion motions of the joint. In preserving the periosteum we have a two-fold purpose. First, to obtain a more natural appearance in the shape of the joint; and, secondly, which is far more important, to obtain a genuine re-formation of bone. The periosteal ablation I accomplished in this case by a periosteal raspatorium, devised, I believe, by Professor Langenbeck, and which was kindly given to me by Dr. O'Grady. As I have found it a most useful instrument in this and other cases where I have had to detach this membrane, I affix here [Fig. 1] a wood-cut of Langenbeck's periosteal raspatorium, and also of one [Fig. 2], devised by M. Ollier of Lyons, in order to give my readers a clear idea of their shape and construction.

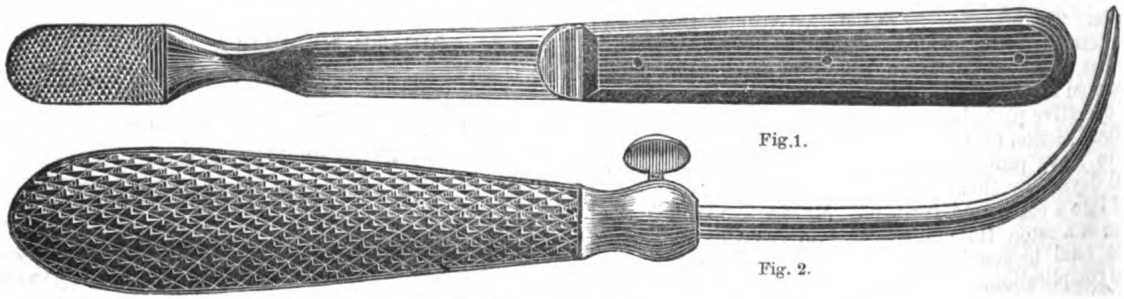

Fig. 1.

Fig. 2.

And here I would certainly join issue with MM. Sédillot, Sarazin, Marmy, and other of M. Sédillot's followers, who have asserted with more energy than reason the vast superiority of the method of *évidement* or "scooping" over sub-periosteal resection, practised in the manner I have described. M. Sédillot's theory is based on the belief that for the successful regeneration of bone, the preservation of the fibrous envelope of the bone is of less importance than its exter-

nal dense compact tissue. It is impossible, according to him, to remove the membrane from the diseased bone without seriously injuring or destroying its osteo genetic properties. He believes that the success of osseous regenerations depends on "two principal causes. First, the integrity of the periosteum; second, the regularity and immobility of the surfaces, sheaths, or moulds, in which the osseous matter is formed.

"Thus is explained the rapidity or slowness of the generation of bone, by the diverse degrees of alteration or distruction of the periosteum (by wound, inflammation, ulceration, suppuration, gangrene), and the immobility and regularity of the surfaces where the osseous cellules are deposited and agglomerated, serve to explain the superiority of the method of scooping (évidement) over that of subperiosteal resection, because in the former the mould is regular, immoveable, and invariable, and the periosteum intact, while, in the latter, this membrane is always more altered, sometimes destroyed, and the mould incomplete, mobile and irregular."*

Without entering minutely into the various objections, theoretical as well as practical, that might with good reason be urged against this theory, I may observe that the "évidement" to be performed in the manner indicated by M. Sédillot, presupposes, of necessity, a case in which the disease is localised, to a greater or less extent, in the central cancellated tissue of the bone; and, though it cannot be denied that this tissue is frequently, though not always, the primary seat of strumous disease, I would ask, is it not of extreme rarity that the surgeon has an opportunity of examining, after operation, a case of strumous disease of any of the joints in which it was localised in this situation? and were the surgeon enabled to diagnose such a case with accuracy, would he then be justified in recommending resection, when the disease was necessarily so limited in extent? In regard to the statement made by M. Sédillot, concerning the injury that is inflicted on the periosteum, which, in his opinion, has the effect of impairing, if not of destroying its osteo genetic properties, the best answer that can be given is, that the facts of a large number of recorded cases, as well as the results of extensive, physiological experiment, are entirely at variance with this purely theoretical objection.

To return, however, to the case which has suggested the above remarks. On opening into the joint I was at once struck with the limited extent of disease in the osseous tissues. It was, in fact, limited to the head of the ulna, but in this situation the cartilages were pulpy and thickened, and the bone soft and degenerated. Although the disease was so limited in the osseous structures of the joint, I had no hesitation in removing the ends of all the bones entering into its formation, as the results of partial excisions have been found to be so unsatisfactory. For example, the difficulty of getting proper union is very great in such cases, and when it is obtained it is usually by bony anchylosis instead of by fibrous tissue. The excision being performed, the edges of the wound were brought together by five or six points of silver suture, and a piece of oiled lint being introduced into the wound to serve as a vent for the purulent discharge, the limb was put in a semi-flexed position in a gypsom bandage. The arm was first enveloped with a flannel roller from the wrist to the shoulder, a large padding of French cotton having been placed over the wound, it was next covered with a coarse muslin bandage, into which I had previously rubbed some dry plaster of Paris powder. This bandage before being applied over the flannel one was moistened with tepid water. A layer of semi-fluid plaster was then laid over the muslin bandage, and this, when nearly dry, was covered with a second muslin roller, and the bandage was completed by laying on a second application of gypsom.

The following day I cut an oval window in the bandage over the wound, and having painted over the bandage with an etherized solution of Dammar Resin to prevent the action of the water softening the gypsom, I placed the limb in the continual bath. In this the arm was kept for twenty-two days. It was then taken out and put up in a felt splint, and the ulcerations, which existed previous to the operation, I commenced dressing with a solution of iodine in glycerine. The case has been progressing favourably ever since.

* Gaz. Hebdomadaire, January 27, 1865. Translated in Syd. Soc., Surgical Report for 1865-66

Reviews.

MEMORIAL STATUE OF SIR HENRY MARSH, Bart., M.D., in the Hall of the King and Queen's College of Physicians in Ireland, &c. Dublin: Printed at the University Press. 1867.

This handsomely printed and bound quarto volume, of pp. 19, with a well-executed Photograph of the late Sir H. Marsh, professes, on its title page, to be a "Memorial Statue" of a late eminent Dublin physician; but wherein it resembles a statue, except by a happy Hibernicism, it is very hard to say, seeing that the work before us is a *book*, whereas the result of Mr. Foley's labours is a beautifully executed statue in marble. It is, however, necessary to explain to the uninitiated that in this well-edited and beautiful volume they will find a full and true account of the "Inauguration" of the statue aforesaid in the Hall of the Dublin College of Physicians, on the 9th Nov., 1866—with a technical description of Mr. Foley's work of art. We have a report of the speeches of Dr. Banks, Dr. Stokes, Lord James Butler, Sir D. Corrigan, and others, on that occasion; and we understand that although the book was printed for the use of the subscribers, a few copies may be had on application to the Bedell of the College of Physicians, in Kildare-street, Dublin. The entire proceedings, it will be remembered, were fully reported in our columns at the time of the inauguration in 1866.

REPORT ON THE CHOLERA EPIDEMIC OF 1866, as Treated in the Mater Misericordiæ Hospital, Dublin; with General Remarks on the Disease. By Drs. Hayden and Cruise. Dublin: Fannin and Co. 1867.

In the *Dublin Quarterly Journal* for May, 1867, Drs. Hayden and Cruise published a long paper on this subject—having previously read a portion of it, which appeared in our own columns, before the Medical Society of the Dublin College of Physicians, during the "Cholera Meetings," held in Dublin in the earlier part of this year.

The work now before us is an 8vo pamphlet of pp. 66, and it professes to be a revised reprint from the pages of our contemporary. It is, however, in fact, a second edition of a very elaborate and exhaustive essay, and we need hardly say that we fully appreciate the labours of the writers, than whom no two Physicians better deserve the *imprimatur* of our Profession for their research, industry, and indomitable perseverance in the pursuit of Medical Science and practice. Every Medical man who reads anything knows "Cruise on the Endoscope," and our own pages frequently testify to the practical merits of his colleague, Dr. Hayden.

THE RETROSPECT OF MEDICINE, &c. Edited by W. & J. Braithwaite, M.DD. Vol. LV., January—June, 1867. London.

This volume is quite equal to any of its predecessors, and we notice it particularly at this time, because it gives ample evidence of the value of many of the Original Communications and Hospital Reports, which we have published during the period embraced in its pages.

The following papers, which appeared in this journal, on the dates below given, are summarised, or given more or less fully, in the current number of Braithwaite:—

Lyons, Dr.—Idiopathic Tetanus. Treatment by Tobacco and Nicotine.—5th December, 1866.

Tyrrell, Mr.—On the Treatment of Delirium Tremens by Indian Hemp.—13th March.

Lyons, Dr.—Delirium Tremens; Treatment by Capsicum.—19th December, 1866.

Lyons, Dr.—Case of pure uncomplicated double Bell's Paralysis.—19th December, 1866.

Sandham, Mr. W. H.—On Faradization and Galvanism.—30th January, 1867.

Marsh, Sir Henry, (the late), edited by Dr. Hughes.—Remarks on Chlorosis and Hæmorrhage.—6th May, 1867.

Marsh, Sir Henry, (the late), edited by Dr. Hughes.—On Epistaxis.—20th May, 1867.

Bamberger, Dr., (translated from the Norse, by Dr. W. D. Moore).—On Nervous Asthma.—13th February, 1867.

Dennan, Mr.—A Case of Resusciation after two hours apparent death by Drowning.—30th January, 1867.

Marsh, Sir H.—On the Treatment of Diabetes Mellitus.—16th January, 1867.

Bishop, Dr. Edwd.—On the use of Artifical Support in certain forms of Deafness ; with cases.—19th December, 1866.

Hinton, Mr. J.—Case of Restoration of a Perforated and Collapsed Membrana Tympani.—19th December, 1866.

Belcher, Dr.—On Porrigo.—5th December, 1866.

Lyons, Dr.—Syrup of the Phosphates—Iron, Quinine, and Strychnia.—19th December, 1866.

Lyons, Dr.—Chlorate of Quinia.—19th December, 1866.

CURRENT LITERATURE.

On the Treatment of Consumption, by Charles Thomason Thompson, M.D. (Hardwicke). This is a little pamphlet of twenty-nine pages, in which the author maintains that, by attention to the skin, the lungs may at once be relieved. He says that out of 200 cases treated on his plan only 20 deaths occurred. This plan seems to be for the most part cold bathing, and where hæmoptysis exists, ice to the chest. He expresses an earnest desire that his method may be tried by others, and that they should publish the results of their experience. We much doubt if any one will do this unless Dr. Thompson will first furnish a more detailed account of his plan, and fuller reports of his cases. He relates, indeed, some cases in a few general terms, but claiming to be able to cure consumption in such proportion, he must not be surprised at the profession expecting exact and full reports. Let us have full descriptions of the treatment and its results, and not be invited without these, to try the effect of "cool bathing," new or old as that remedy may be.

The Humidity of the Air of Scarboro', by Cornelius B. Fox, D.M. (Simpkin, Marshall, and Co.) The author confesses that the rain records of the town do not possess a great degree of authenticity. He has, however, furnished a very useful sketch of this department of Meteorology, and might very well have extended his little work to other kinds of meteorological observations in Scarboro'. Dr. Fox seems to be devoted to the subject of rain, for he heads each chapter with a quotation glorifying the downfall, and inscribes on his title page, "Sing unto the Lord, who covereth the heaven with clouds, who prepareth rain for the earth." We have a great fault to find with Dr. Fox. His little book is too cheap. The profits are to be given to the Scarborough Village Hospital, and we fear that charity will not be much the gainer ; for this neat little work, with plenty of tabular matter, is sold for ninepence. It is well worth a shilling, and we hope a second edition will soon give the author an opportunity of raising the price. If he would add an account of the temperature, and prevailing winds of the town, as carefully done as his rain statistics, he might conscientiously double the price.

The *Theory of Vital Force*, and the *Threefold Nature of Health and Disease*, by E. Haughton, M.D. (Churchill and Sons), have both lately reached us, although the former seems to have been published in 1862, and the latter last year. We presume the one is to illustrate the other. Dr. Haughton would seem to some extent to follow Dr. Chambers in the doctrine of the "Renewal of Life," and yet in some points to differ from him. We do not see that he has added much to Dr. Chambers's exposition, and to say that he had rivalled his master in the elegance of his diction or the art of making himself understood, would be flattering Dr. Haughton too much. We have read both his pamphlets with care, but are not so sure of our ground as we always are in any exposition by Dr. Chambers.

Messrs. Bailey and Son, of 17, Lawrence Pountney-hill, have issued a pamphlet on a *New and Simple Process for the Preservation of Meat, Poultry, Fish, and other Animal Food*. The process is patented by Messrs. Medlock and Bailey, and consists in immersion in "Bisulphite of Lime Solution," which is sold at an uniform strength by the patentees. It is urged that this plan will keep all animal food for an indefinite time in any climate. It will thus save enormous quantities of food hitherto wasted, and will enable ships to be constantly supplied, under all circumstances, with fresh meat.

De la Laryngite Chronique étudiée a l'aide du Laryngoscope, par le Docteur E. Nicolas. This is a brief but thoroughly practical paper on topical medication in certain forms of diseases of the throat. The cases are related, and the lessons they teach pointed out with that precision which is the charm of French clinical memoirs. We have read it with great pleasure, and we find that the practice of M. Nicolas quite accords with that we have found most useful. There are only sixteen pages in the pamphlet, but these contain more than many much larger books—that is, more really valuable clinical lessons. We take this opportunity of mentioning that M. Nicolas has translated into French Dr. M. Mackenzie's book on the Laryngoscope. We have already favourably reviewed the second English edition of this book, so that we shall only be expected to notice the fact of its having appeared in a foreign dress, as a sufficient confirmation of the opinion we have pronounced.

A New Process of Preparing Meat for Weak Stomachs, by W. Marcet, M.D., F.R.S. In this interesting little pamphlet, an accomplished chemist proposes to submit to a process of preliminary artificial digestion, the meat which it is desirable some invalids should take, but which they are unable to digest, on account of the pain it produces, or, on account of any morbid condition of the stomach. Full and explicit directions are given for making a sort of artificial chyle, by digesting in muriatic acid and pepsine at a proper temperature. The preparation can easily be made at the patient's house, and it is not unlikely it will supersede, in many cases, the use of beef-tea, as its nutrient qualities must be more complete.

Hirschfeld and Léveillé *on the Nervous System*, edited, in English, by A. M. Macdougal, F.R.C.S. Part II. London : J. Churchill & Sons. We noticed, some time since, the first part of this splendid work. When complete it will make a beautiful quarto atlas of coloured plates. The name of Churchill has long been a guarantee for the excellence of illustrated works, and it would be superfluous to repeat the admiration that we have several times expressed in this respect, of the spirit with which this firm engages in these costly but valuable series. The plates, under immediate notice, have long been known on the Continent as the very best of their kind. We are glad to direct attention to an English edition, and to add that the manner in which Mr. Macdougal conducts it, is worthy of the original. The work is to be completed in twelve parts, each of which will contain, on the average, six of these admirable plates.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 31, 1867.

THE LICENSE OF THE LONDON COLLEGE OF PHYSICIANS.

THE Membership and Fellowship of this College have been so thoroughly discussed in recent articles in this Journal, that we may be fairly expected to turn attention to the newer qualification. This seems especially desirable, since, at the present time, much excitement has been caused by a proposal to alter the bye-laws which regulate the bestowal of these

Licenses. Hitherto, candidates for the Licence, amongst other certificates, have had to produce one to this effect:—"Of having been engaged in Professional studies during four years, of which the first two years, and one other year, shall have been passed at a recognized Medical School or Schools, and of having attended the Medical Practice at a recognized Hospital or Hospitals, during two years of that period; and the Surgical Practice during twelve months; and of having been engaged during six months in the Clinical Study of Diseases peculiar to Women. The last of the four years of Professional Study must be passed at a Medical School, Hospital, Infirmary, or Dispensary recognized by the College."

Now, the point of the above regulation is, that the first two years must be passed at a recognized school, so that the student's education dates from the day of his actually commencing Hospital study, while one of the four years may be passed elsewhere. This regulation was, we believe, framed in accordance with the desire of the Medical Council, but has been found to work badly, and has therefore been abandoned by other examining bodies. The fact is, that gentlemen have long been accustomed to commence their Professional career before they entered a recognized hospital, and it certainly does seem hard that zealous work outside the select circle of authorized teachers should count for nothing at the beginning of Medical Education, but should be admitted as an interlude in Hospital work.

We believe that if extra hospital education is to be recognized at all, it should be at the commencement of the pupil's career. The fact is patent to every observer, that there are many subjects on which a student ought to be informed before he enters an hospital.

It is well-known to teachers in London, that the most promising students are those who have been private pupils of practitioners before they began the hospital curriculum. It has long been the strong point of the Apothecaries' Company, that an apprenticeship to a qualified practitioner, afforded the best possible introduction to the Profession. There are, indeed, many who despise the name apprentice, but even they can scarcely deny that a modified pupilage, such as is now accepted by the Company, affords an opportunity for acquiring practical knowledge that no other system can supply, and we could instance the names of some of the most eminent Physicians and Surgeons who, in educating their own sons for the Profession, have deliberately adopted the plan of putting them out as apprentices (or pupils if the word be preferred) for a term before entering them at the Universities. It would then seem unreasonable to insist on all work being ignored prior to the date of entry, at a recognised hospital or school. These should, in point of fact, be the places for finishing the education of the student, for assuredly these vast storehouses of information are more adapted for clinical and practical work than for the inculcation of first principles or the guidance of mere preliminary studies.

From the tenor of the previous remarks, it will be seen that if the alterations in the bye-laws be confined within these limits, we cannot condemn the change as injurious to the Profession, but if, as is believed in influential quarters, further modifications are to be attempted in order to make the license more popular, it may become a duty to adopt a decisive tone of remonstrance. The fact is, that the whole discussion arises from the useless desire to keep all College proceedings secret. There can be nothing more detrimental to the interests of the Corporation, than this private method of instituting organic changes. Both Fellows and Members of the College have a vital interest in every change, but only the former have a consultative vote. Until the latter obtain a voice, they will naturally feel a jealousy, lest the third order encroach upon them. This jealousy is also felt towards Members by the Fellows. Why is not some attempt made to do justice to all? The Members have few privileges not accorded to Licentiates, for the latter are many of them practising as pure Physicians, and against both law and custom, dubbing themselves doctors. There would seem to be no solution except drawing the line between general practitioners and Physicians, and surely every Member of a College of Physicians ought to have some voice in its affairs. This, at present, they have not. The Fellows only are consulted on the most radical changes, and they seem to care nothing for either Members or Licentiates, except to get their fees to spend on keeping up the dignity of their own order, and the privileges incidental to their own vested rights. And what are these vested rights? What—but the bane of all our Corporations? the right of taxing the majority for the benefit of the minority!

Notes on Current Topics.

The Late Sir William Lawrence.—Mr. Churchill has written to one of our contemporaries to say that he purchased the copyright of Carlile's publications, and afterwards was Sir William's publisher. He then points out the difference between the original edition and the pirated one, and fully endorses the statement of Sir Trevor Lawrence.

The Apothecaries' Society of London.—The list of members of this body will shortly be ready. It is usual to add to it a list of examiners, and sometimes the examination papers. We think the Society might very advantageously add to this a list of their licentiates. A very little extra expense would thereby be incurred, and the list

would be advantageously circulated widely. The Society has done so much for the Profession that we anticipate this hint will be immediately considered. It would be pleasant for every licentiate to receive a copy, and would probably add to the deservedly good feeling cherished towards the Society.

University College.—Some distinguished Graduates of the London University have lately been elected Fellows of University College. A correspondent is desirous of knowing what is the precise value of that honour. Does it confer any privilege, or is it merely an empty name for those who have studied at that institution? Is it confined to Graduates of the London University? Is any fee levied on election? Is the distinction much sought for, and, if so, why? With the Profession overloaded with various distinctions, the questions do not seem unreasonable. We therefore give them prominence, and offer any Fellow proud of his honour the opportunity of replying.

The Speech of Professor Beesly on the Sheffield Outrages.—The Council of the University College have decided by a majority of eleven to three not to make any movement respecting the speech of Professor Beesley at Exeter Hall, on the Sheffield outrages, which caused so much sensation. In so doing, the Council has only acted justly. It would be a blot upon a body like that of University College to attempt to regulate the opinions of its Professors. Why should a dissentient voice in a political question be less tolerable than on religious differences? Surely the principles of toleration on which the College is founded forbid intellectual, moral, and political tyranny, as much as sectarian despotism.

Surgical Qualifications.—A correspondence has taken place between the London College of Surgeons and the Glasgow Faculty of Physicians and Surgeons respecting an allegation in one of the journals, apparently emanating from some officer of the former corporation, that candidates rejected by the London College had frequently obtained diplomas at the Glasgow Faculty. The London College, of course, refuses information when challenged by the Faculty to furnish names as a proof of the statement. Nothing but the *non possumus* could have been expected. The profession will conclude that the Faculty of Glasgow has completely vindicated its reputation.

Charing-Cross Hospital.—A public distribution of prizes took place on the 19th ult.—the Right Hon. Sir F. Pollock in the chair. A complete change in the mode of working this charity is likely to be effected. The alterations in the rules have in fact passed the preliminary stages. We believe that an effort will be made to render new appointments of officers more equitable, and that special departments will be organised in the best possible manner. The following is a list of the prizes distributed:—

"For General Proficiency: gold medal, Mr. W. Powell. The Governors' Clinical Prize: silver medal, Mr. Alcock. Anatomy (senior; Mr. Barwell): silver medal, Mr. W. P. Adams; certificates, Mr. Hugo and Mr. C. E. Little. Anatomy (junior): bronze medal, Mr. W. H. Pearce; certificate, Mr. Biddle. Physiology (senior; Dr. Tonge): silver medal, Mr. Thornycraft; certificates, Mr. Hugo (1st) and Mr. W. P. Adams (2nd). Physiology (junior); bronze medal, Mr. S. T. Conolly; certificate, Mr. Towt. Chemistry (Mr. Heaton): certificates, Mr. Aubrey (1st) and Mr. Conolly (2nd). Medicine (senior; Dr. Hyde Salter): silver medal, Mr. W. C. Calthorp; certificate, Mr. Alcock. Medicine (junior): bronze medal, Mr. W. H. M. Smith; certificate, Mr. H. Skelton. Surgery (Mr. Canton), senior: silver medal, Mr. R. Alcock; certificate, Mr. Calthorp. Surgery (junior): bronze medal, Mr. Towt; certificate, Mr. Pearce. Materia Medica (Dr. Headland): silver medal, Mr. H. Skelton; certificates, Mr. C. E. Little (1st) and Mr. Hugo (2nd). Forensic Medicine (Mr. Hird): silver medal and book, Mr. Calthorp; certificate, Mr. Alcock. Obstetric Medicine (Dr. Parson): silver medal, Mr. Thornycraft; certificates, Mr. Alcock (1st) and Mr. Buck (2nd). Botany (Dr. Silver): silver medal, Mr. Little; certificate, Mr. W. P. Adams.

Honorary Degrees.—We understand that, in addition to the degrees of Doctor of Medicine *honoris causâ*, which will be conferred by the University of Dublin on Sir J. Simpson, Mr. Syme, and Mr. Rumsey, of Cheltenham, and others, at the special commencements to be held in connection with the meeting of the British Medical Association, the King and Queen's College of Physicians propose to confer the distinction of their Honorary Fellowship, amongst others, on Dr. Falconer, of Bath; Dr. Greame, Dr. Greenhalgh; Dr. Markham, and Mr. Lockhart Clarke.

Transmission of Purpuric Fever from the Pig to Man.—The analogy between the "purples" in the pig and the malignant purpuric fever in the human subject was first publicly noticed by the Registrar-General in his mortality returns for London. Dr. Lingen, of Hereford, corroborates that view in the communication which we publish in another column. It appears that the pig died on the 18th of May, with all the symptoms of "purples." About the same time a servant-girl was taken ill, but with no symptoms to identify the disease. The landlady on the 31st was attacked with cerebro-spinal symptoms, with purpuric spots, and with a great pain in the right forearm. On the same day, the man who had buried the pig was attacked with exactly similar symptoms, but without the spots, and died three days subsequently. The indications in these patients were not so distinctive of either cerebro-spinal or purpuric fever as to put the diagnosis beyond doubt. Nevertheless, the coincidence, if it were nothing more, is very remarkable. We believe that many cases of this disease in the pig occurred near the Curragh Camp, but connection between them and the affected persons in the Camp was not traced.

Sympathy in Disease.—There is no subject in the domain of pathology more worthy of close and philosophic research than that of sympathy, which Mr. Macilwain treats of in another part of our issue to-day. Abernethy was the first observer who remarked on the fact that the organ which was the seat of the disease was not necessarily the seat of the symptoms, and Mr. Macilwain points out that this is the general rule of all sympathetic disorders. He remarks on the electric sympathy between different organs of the animal system which, while absolutely essential to the animal economy, is apparently inconsistent with the known laws of sympathetic connection. The investigation on which Mr. Macilwain has entered, is of cardinal importance, because it strikes at the root of all empirical practice which treats symptoms, while it ignores the cause, and if these considerations receive the attention which they appear to deserve, a great revolution must take place in existing principles of therapeutics.

ABORTION IN AMERICA.—The State Assembly of Rhode Island have, to their credit, been the first to take measures for the suppression of the abominable crime of fœtal murder, now prevalent in the United States, and have, with that object, passed an Act in their last Session. The Act provides that "every person who shall be convicted of wilfully administering," or who shall "employ any means whatever with intent thereby to procure a miscarriage, or of aiding, assisting, or counselling thereto, unless the same is necessary to preserve life, shall, if the woman dies, be imprisoned for not more than twenty, and not less than five years, or, if she do not die, for not more than seven years, provided always that the woman herself shall not be liable to these penalties." Another section provides that whoever knowingly advertises, prints, publishes, or circulates any paper or advertisement, containing any notice, hint, or reference, by which information or knowledge may be obtained for causing abortion, shall be imprisoned for not more than three years. The American medical periodicals teem with authentic instances of abortion or the attempt to procure it, and the New York *Medical Record* publishes a case in which a beneficed clergyman endeavoured to persuade a medical man to bring about a miscarriage in his own wife, *because she was going on a sea voyage, and he did not wish her to be confined on board ship.*

THE ICE-BAG IN SEA-SICKNESS.—In another column will be found a letter from Dr. Chapman, who generously offers to send spinal ice-bags to medical men about to cross the Irish Channel in order to be present at the Meeting of the British Medical Association in Dublin, and thus to enable them to test the efficacy of his proposed remedy for sea-sickness. We adverted, a few weeks ago, to the nature and *modus operandi* of this remedy; we showed that it originated in a thoroughly scientific appreciation of well-established physiological facts; that its success appears to have been demonstrated by a considerable number of experiments; that every person who has availed himself of it testifies not only to its efficacy but to its surprising comfort and agreeableness while used, and we called upon the profession to use their influence to get its value thoroughly tested and ascertained. Dr. Chapman, in his letter, suggests that medical men going to the meeting of the British Medical Association at Dublin, or to the Medical Congress in Paris, should do this, and offers to supply them with the apparatus for their experiments; we earnestly hope, therefore, they will accept his proposal and will report the results; for, obviously, if the simple means he proposes will really arrest sea-sickness, no time ought to be lost in proclaiming the removal of this distressing malady from the catalogue of incurable diseases.

THE PUBLIC HEALTH.—The deaths registered in London during the twenty-ninth week of the year were again below the average number. Calculating for the increase of population, there were 225 less deaths than the estimated number for the week. It is to be noted, however, that diarrhœa continues to increase—the deaths from this disease in the last four weeks having been 48, 54, 115, and 170 respectively. Of the 170 in last week, only 8 were deaths of adults, the remaining 162 being those of children. Even the present numbers are not so alarming as many think. In the corresponding week of last year the deaths from diarrhœa were 221, besides 346 from cholera. The annual rate of mortality during the week was 21 per 1000 in London, 29 in Edinburgh, and 19 in Dublin; 16 in Bristol, 24 in Birmingham, 27 in Liverpool, 29 in Manchester, 25 in Salford, 18 in Sheffield, 24 in Leeds, 22 in Hull, 23 in Newcastle-upon-Tyne, and 27 in Glasgow. The rate in Vienna was 28 per 1000 during the week ending the 13th inst., when the mean temperature was 0·1° Fahrenheit lower than in the same week in London, where the rate was 21.

CONVALESCENT HOSPITAL.—The directors of St. George's Hospital are enabled, by a princely benefactor, to extend its usefulness by the erection of a convalescent hospital. Mr. Atkinson Morley, proprietor of the Burlington Hotel, in Cork-street, willed his entire property to St. George's, with the direction that the interest should accumulate for five years, at the end of which time the whole would amount to about £150,000. In 1865 this sum was paid over to the hospital, and out of it they have bought twenty-eight acres of ground at the south-west corner of Wimbledon-common, where the intended convalescent hospital is to be built, the first stone of which was laid on Thursday. The wards are to accommodate 100 patients.

Foreign Medical Literature.

CASE OF OSTEOMYELITIS SPONTANEA DIFFUSA.

By P. THILESEN.

TRANSLATED FROM THE NORSK MAGAZIN FOR LÆGEVIDENSKABEN, XXI. BIND, I. HEFTE, CHRISTIANIA 1867, P. 3.

By WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY, AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

THIS case, which was admitted in the beginning of 1864 into the Medical Division of the Royal Hospital, with the diagnosis of aneurism of the aorta, should have been reported among the other cases which constituted the last part of my hospital report. The journal was, however, at that time mislaid, and was only within the last few days quite accidentally found. As the case presents great interest, both as a singularly fully developed example of this disease, which has only of late years been more closely studied, and on account of its, in some respects, rather unusual course, and the diagnostic difficulties with which it was, at all events in the commencement, surrounded, and which gave rise to the erroneous view at first entertained, which was never completely rectified by any of the medical men who had occasion to examine it, I did not wish to lose the opportunity, when the journal was again suddenly found, of recording it. But so long a time has now elapsed that it will unfortunately not be possible for me to complete from memory the rather imperfect report, as at an earlier period I might have done. Nevertheless, what is wanting, desirable as it might have been to be in possession of it, is not so considerable or essential as to render it necessary to hold back the case.

Alvilde Carlsen, aged 14, was admitted into hospital on the 24th of April, 1864, and died there on the 6th of May. The investigation of her former state, undertaken with a view to ascertain especially whether there had been at any time signs of any affection of the heart, lungs, or large thoracic vessels, according to the journal, elicited nothing. The patient seems always to have been healthy, until some weeks before her admission into hospital.

After having for some days had a slight excoriation on the second toe of the right foot, she danced three weeks ago in a pair of tight boots. The next day the toe swelled and pained her in walking. However, the swelling, and,

as it seems, the pain and tenderness disappeared after the lapse of a couple of days, whereupon she began to feel pricking pains in the thigh and groin, particularly when she walked. Whether these last painful sensations were developed gradually during, or immediately after, the affection of the toe, or whether after the latter was well, they occurred quite suddenly, I cannot say. In the journal is found only what I have above quoted, and after so long a time I cannot recollect whether, on subsequently examining the mother and daughter, I obtained any more definite statement from them. But, from the following expression, it would appear that the pains had occurred rather very suddenly than the reverse:—"Next day the right lower extremity, particularly the thigh, became swollen." It is stated that at this time there was great tenderness on pressure over the whole leg, but especially in the popliteal space, the groin, and a point in the middle of the thigh; every movement of the extremity pained her excessively, so that she was obliged to lie perfectly still with the limb flexed in the hip and knee-joints, and rotated outwards. No change seems to have been observed in the colour of the skin of the extremity.

At the same time she began to have great thirst, and lost her appetite. When she endeavoured to raise herself in the bed she usually got a rigor over the whole body, unaccompanied with any feeling of cold; on the contrary, she perspired rather freely and uniformly. Her nights were almost sleepless, with occasional delirium. Eight or nine days ago, that is rather less than a fortnight after the commencement of her illness, stitch-like pains supervened, passing from the middle of the sternum to the back. Nothing is stated more particularly respecting these pains, and especially nothing which might indicate any local or thoracic affection. According to the journal this state continued unaltered until six days ago (that is rather more than a fortnight from the commencement of her illness), when, in the course of the night, violent cough set in, with scanty, colourless expectoration, and great dyspnœa. *Later in the day her mother observed a strongly pulsating tumour in the middle of the sternum*, which must, apparently, have formed very suddenly, as both she and the patient positively assert that it was not previously to be seen. This tumour is said to have varied somewhat in size. About the time it was observed the patient remarked a weakness in the left upper extremity, so that she could only most imperfectly move the fingers and forearm, while every movement, whether active or passive, of the elbow and shoulder joint caused great pain. The bowels were at first regular, subsequently constant diarrhœa set in, with four or five, thin, green, and chopped-looking, extremely fœtid stools in the twenty-four hours.

On her admission into hospital she looked very pale and exhausted. She complained particularly of pains over the sternum and in the back, which were aggravated by cough or any movement of the body. There were violent dyspnœa (respirations fifty-six in the minute), cough, with frothy white expectoration, and palpitations. The weakness in, and the pain on movement of, the left upper extremity were considerably less. Here there seemed to be no change of sensibility, no tenderness on pressure except over the shoulder joint. The right lower extremity was swollen in its whole extent, slightly over the foot and leg, more so over the thigh. The os femoris was tumefied in its lower half, whether it was swollen also further up could not be accurately determined, as the integuments were very thick, rather swollen, and extremely sensitive on deep pressure. The tenderness extended further over the entire length of the thigh, though it was, perhaps, most strongly marked in the groin and in the middle. The skin was tolerably hot, but was scarcely more highly coloured than on the other side. Along the inner surface of the thigh, apparently in the line of the vessels, a tense cord, as it were, was felt. The limb was kept flexed in the hip and knee joints, was strongly rotated outwards, which could not be altered, any attempt to do so being attended with intolerable pain.

On the anterior surface of the chest, in the middle of the sternum, was seen a tumour of a somewhat oblong form, with its longest diameter passing obliquely from rather outside the right sternal margin upwards and outwards to a little outside the left sternal margin. From above downwards it extended from the upper edge of the sternal insertion of the second rib to a line drawn on a level with the nipples. The skin on the tumour was traversed by bluish veins, was of the usual colour, not hot, rather thin. There was extremely distinct superficial fluctuation and strong pulsation, but the impulse was flaccid and soft. No particular pain on manipulation of the tumour; when the finger was brought more deeply under the tumour, the sternum was felt everywhere, and especially superiorly and inferiorly, to end in a sharply cut off margin; the bone seemed to be there totally deficient. The tumour yielded in its entire extent a dull sound, around it the sound was clear. The cardiac sounds were pure at the apex. Over the tumour a soft blowing sibilant sound, isochronous with the first sound of the heart, was heard. The sounds were transmitted only a short way upwards in the carotid. The pulse was 130, and was isochronous with the heart's impulse. The pulsation in the peripheral arteries was normal in strength and chronological order. Posteriorly in the middle portion of the right lung the sound on percussion was dull, and there was a soft bellows murmur.

Iodine was applied over the thigh and shoulder, and in the course of the following days a couple of incisions were made on the outside of the thigh, after which, especially after the last, a quantity of thin pus, mixed with blood, was discharged; a very good discharge took place through a drainage tube passed between the two incisions to the bottom of the subjacent abscess. The rest of the treatment consisted essentially in endeavouring to support the strength.

The patient's condition, on her admission into hospital, was already hopeless. Her strength rapidly diminished, particularly under the increasing diarrhœa and the total want of sleep at night. She raved day and night, until at last she fell into a completely comatose state, in which she died on the 6th of May, about a fortnight after her admission to hospital, and as nearly as possible five weeks after the commencement of her illness.

The disease was, as has been stated, at first looked upon as aneurism of the aorta, and with, but independently of the same, periostitis femoris. I also thought it possible that the disease might be another kind of affection of the bone, and that in such a case a definite connection existed between it and the supposed aneurism. Thus Richard Volkmann* calls attention to a peculiar connection between cardiac disease and affections of the bones, particles of deposits on the valves of the heart becoming impacted in the minute arteries of the bones, and giving rise to necrotic and other processes. Aneurisms of the aorta might certainly in this respect have the same influence.

Even from the first glance the diagnosis made by the examining candidate was not very satisfactory. The symptoms derived from the tumour itself were not the most characteristic of aneurism of the thoracic aorta. What was wanting was certainly not so essential, that we might not, in some modifications of this disease, find the symptoms developed in this little indicative mode. But when, in addition, we had the singular mode of development of the tumour, the state of the bone at the seat of fracture, the total absence of the symptoms of any earlier affection of the thoracic organs, and, finally, the course of the whole disease, the existing slight deficiency in the symptoms acquired a totally different and increased significance.

Although all this, at the first view, stood clearly before me, I could not avoid the impression which this pulsating tumour gave, and the disease was therefore, notwithstanding the existing doubt, set down as aneurism of the aorta and

* Langenbeck's Archiv, B. 5, p. 330.

periostitis femoris. It was only when, a few days after the patient's admission, a colleague, who saw the case, expressed the same doubt as to the correctness of the diagnosis, based upon the same circumstances as are above referred to, that I found myself in a position to get rid of the first impression, and adopt another opinion. In the hopeless state of fully developed pyæmia, in which she was on her entrance into hospital, this mistake did her no harm. Earlier in the course of the disease the error would have been of much greater importance, but to be sure it would then, at least before the development of the tumour, have been less easy to fall into it. The diagnosis now made was, as the post-mortem examination showed, approximatively correct. It was now thought that we had to do with a *periostitis purulenta acutissima*—periostitis maligna, as it is also sometimes called, to be distinguished from the general, more benign periostitis purulenta, a form of disease in which, in a comparatively short time, a thin, fatty, fœtid pus is formed under the periosteum, in the tissue of the same, and externally in the soft parts, which, in a shorter or longer period after its formation is absorbed (we have examples of this occurring in twenty-four hours after the commencement of the disease), and gives rise to pyæmic and septicæmic conditions, with sudden collapse of the strength, and death. The idea of osteomyelitis did not occur to me, chiefly, no doubt, because the disease is still so little generally known, and even if I had thought of the possibility of its presence, it would have been almost impossible, in its then stage, to say decidedly which of these affections would be found in this case.

I shall venture briefly to state what I have above touched on as having raised a doubt in my mind as to the diagnosis of aneurism. The strong pulsation, which was seen and felt over the whole tumour, had rather a passive character, consisted rather in a heaving and sinking of the tumour, than in an undulating, more active contraction, from which one gets the impression that it is actual aneurismatic pulsation. But where the aneurism is of the mixed sacciform kind, with its walls formed merely of the dilated outer membranes, and communicates only with difficulty by a small opening with the cavity of the vessel, the aneurism is rather to be considered as a tumour external to the artery, and would probably sometimes present such a less characteristic pulsation. The accessory sound, which was heard over the tumour, had not the sharp, rough clang, which is often perceptible to the hand as a feeling of vibration and purring, was not heard like grating, rasping, or filing, but was more a simple, soft, blowing, accessory sound, such as a gentle pressure on the artery, a slight obstruction in the circulation can produce.

Notwithstanding these *lacunæ* in the existing symptoms, the case might have been one of aneurism of the aorta, if there was nothing else to prevent the assumption that it was such. Thus there was no change observable either in the size or chronological order of the arterial pulse below the aneurism compared with the heart's impulse. All was in this respect normal. In the next place, an aneurism of the size would scarcely have existed without perceptible signs of coagula and depositions in the sac, which, in this instance, was found to be quite thin, and, with corresponding fluid contents, almost of the consistence of water. Rapid as we might have imagined the development of an aneurism to be, even if we assented to the not very probable statement of the mother, and supposed that it had formed by a rupture of the two inner coats during excessive dancing, it must still have been possible, in the space of two or three weeks, during which the tumour was said to have existed, for depositions to have formed in the sac; it could scarcely be supposed, taking the mode of origin and the time it had existed into consideration, that the communication between the sac and the artery should be so enormous that the total contents of the former should, at every pulsation, be completely emptied into the artery, and at each contraction of the heart be again as completely renewed, which would seem necessarily to be the case to have the contents of the sac such as they were; moreover it might objectively be proved that no such complete emptying and filling took place. The defect in the bone had, besides, by no means the character of a slowly progressive corrosion of the same. The edges of the aperture were sharply defined; so far as could be ascertained, they were of the normal thickness of the bone, as if chiselled out in the sound sternum. Strong as the pressure produced by an aneurism might have been, it could not possibly have produced such acute destruction of a, so far as can be seen, previously entirely healthy bone. In looking for a cause we must in this case necessarily refer to an acute disease in the bone, which has in a very short time been competent to weaken its power of resistance to a fluid of less indifferent nature than blood collected behind it. The course of the whole disease testifies also in the most decided manner against the diagnosis. Never before had the child exhibited the slightest sign of any affection of the thoracic organs, the heart, lungs, or great vessels. Of the correctness of this no doubt can be entertained, the examination both of mother and child was too searching, and was repeated too often to admit of any question on the subject. Nor was the child's age in favour of any chronic degeneration in the wall of the aorta—affections of such a class belong rather to somewhat more advanced years Lastly, the disease had begun in an acute form three weeks before the patient's admission, with symptoms referrible to the right lower extremity, and it was not until about a fortnight later that any sign of affection of the chest manifested itself. To establish the diagnosis of aneurism we must look away from all this, do violence to the phenomena, unnecessarily separate the complex of symptoms which suit one another well, into two groups, wholly independent of each other, while all can be freely and naturally explained by the hypothesis of an acute, malignant affection of the bone, with secondary pyæmic symptoms; but so strong was the impression on the mind produced by the existence of the pulsating tumour, that all this was done.

The mother stated that she had before lost a child with perfectly similar symptoms, and at about the same age. An elder sister looks very cachectic, suffers from psoriasis, and the whole family bears the stamp of debility. It is therefore possible that a cachexy has had something to do with the origin of this affection, so far as the disposition is concerned, and that thus only a slight external cause was required, to produce the disease.

As to the frequency of the disease in this country I have nothing to say. Once before I believe I met with it. A good many years since I had a boy in hospital, aged eleven or twelve years, who had for many years been under the so-called English doctor's treatment for an affection of the thigh; the symptoms, as I now remember them, seemed to have been about the same. In this boy a solution of continuity took place during the progressively destructive process in the femur.

(To be continued.)

Examination Papers.

UNIVERSITY OF DUBLIN, TRINITY COLLEGE. EXAMINATION FOR MEDICAL DEGREES.

Botany.—Dr. Dickson.

1. What is the difference between a true and adventitious root?
2. Give an example of a plant climbing by its roots.
3. Where do stomata principally occur, and what is the effect of turgescence of the stomatic cells by absorption of water?
4. What is the nature of an interpetiolar stipule?
5. What is the difference between a pike and a capitulum?

6. What peculiarity in the insertion of stamens usually accompanies a gamopetalous condition of the corolla?

7. Name the structure of stem usually associated with recticulated venation in the leaves?

8. What is meant by the term *monadelphous* as applied to stamens?

9. Give the general character of the natural family. Umbelliferæ as to *leaves*, *inflorescence*, *corolla*, *ovary*, and *fruit*.

10. State the order and sub-order of the plant before you: describing the structure of the fruit, and the peculiar condition of the stramens in the plants of this family.

INSTITUTES OF MEDICINE.—DR. LAW.

1. What are the requirements of the Economy to which food ministers?

2. To meet these requirements fully, what should be the constitution of the food?

3. Is their any single alimentary substance that contains all the ingredients required for supporting life?

4. What error does the term Asphyxia involve as applied to the mode of death to which this term is ordinarily applied?

5. What do you understand by Thrombosis?

6. What do you understand by Aphasia?

7. Where in the brain is the lesion usually found in Aphasia?

8. Describe the modifications of the respiration in a case of acute pleurisy terminating in effusion, and in which the fluid is eventually removed. Describe also the decubitus of the patient through the stages in acute pleurisy.

9. What circumstances would make you resort to the operation of paracentesis thoracis in acute pleurisy?

10. What are the causes under the influence of which dropsy occurs in the animal body?

SURGERY.—DR. R. W. SMITH.

1. What is meant by the "hæmorrhoidal flux"? Mention its causes and treatment.

2. Mention the organic diseases with which hæmorrhoids are found associated. Describe the treatment of what is termed a "fit of the piles."

3. Distinguish between hæmorrhoids and the hæmorrhoidal excrescence.

4. Describe Amussat's operation for making an artificial anus.

5. Give the pathological characters of an artificial anus, the result of strangulated hernia.

6. What are the causes of *acute* inflammation of the prostate gland?

7. What causes produce abscess in the axilla? Mention the varieties of axillary abscess. What form of the disease is most dangerous?

8. Describe the symptoms and varieties of luxation of the first phalanx of the thumb forwards.

9. What modes of treatment have been proposed for the cure of bronchocele? Give the particulars of Cline's case.

10. What are the signs of fracture of the neck of the scapula? Distinguish this injury from others that resemble it.

MIDWIFERY, &C.—DR. SINCLAIR.

1. Describe the various forms of extra-uterine fœtation. Give the diagnosis, the treatment, and explain the symptoms in the three following cases:—

2. Case I.—A woman has been for some time in the second stage of labour; the head presents, and is engaged in the upper half of the true pelvis; uterine action is powerful; during a pain there is a sudden and momentary increase of suffering to an intense degree, immediately followed by collapse, cessation of action, complete recession of the presentation, and rather profused hæmorrhage.

3. Case II.—One perfectly similar to Case I. with the exception that there is the recession of the presentation is incomplete.

4. Case III.—One perfectly similar to Case I., with the exception that *no recession* of the presentation, and no visible hæmorrhage.

5. On what principles did Sir James Simpson recommend version in certain cases of narrowing of the conjugate diameter of the brim of the pelvis? State also anything you may know relative to the history of version in connection with pelvic narrowing.

6. Abortion has occurred at the fourth month of gestation; the fœtus has been expelled, but the shell of the ovum remains in utero. What are the dangers of such a condition, and how would you treat such a case?

7. Granted that the placenta is retained from morbid adhesions, how would you be led to distinguish complete from partial adhesion; and what treatment would you adopt under either condition?

8. How would you distinguish the substance expelled during a certain form of dysmenorrhœa from that of an early ovum; and what is the nature of this substance?

9. What is the difference between retention and suppression of the menstruation—the varieties of the former, and their treatment?

10. Write a recipe for a woman who complains of violent after pains, and consequent loss of sleep; state also what other means you would adopt to assuage their severity?

MEDICAL JURISPRUDENCE.

ROBERT TRAVERS, A.M., M.B.

1. Distinguish the tetanus of disease, or consequent on lesions, from that caused by a strychnic poison.

2. Why are not the means hitherto proposed for the detection of chloroform in the blood to be accepted as sufficient?

3. Antimony and arsenic being both present in solution in a fluid containing organic matters, how will you detect and exhibit them separately?

4. On what circumstances observable in anatomical inspection will you depend as proving that the death of the infant during the period of lactation was caused by the privation of food, and not by any diseased condition inducing atrophy?

5. What principles of treatment would guide you in cases of poisoning by phosphorus?

6. By what means would you render the iron contained in the colouring matter of the blood available in the discrimination of stains on the surface of cutting instruments?

7. By what pathological characters in the dead body can you distinguish narcotic poisoning from apoplexy?

8. By what characters will you recognize death from hæmorrhage, in the new-born child?

9. What circumstances in a wound serve to prove that it was suicidally inflicted?

10. In what cases may death be the result of violence leaving on the body no appreciable trace of lesion, either superficial or deep-seated?

THE CONVERSAZIONE AT THE ROYAL COLLEGE OF PHYSICIANS OF LONDON ON WEDNESDAY, JULY 24, 1867.

THIS entertainment may be safely pronounced most successful. Soon after nine o'clock, the time fixed on the invitation cards, the rooms were filled with visitors, who evinced considerable interest in the various objects of interest that had been brought together. The objects exhibited included:—Portrait of Sir Thomas Watson, Bart., by George Richmond, R.A.; Crouch's Binocular Microscope, with Nachet's Stage, exhibiting specimens of Eozoon Canadense, by Dr. Carpenter; Twelve Slides of the Soft Tissues, prepared at the Army Microscopical Department, Washington, U.S., by Dr. Maddox; Section of Sheep's Kidney, injected with Prussian Blue, and subsequently coloured by Carmine to show Renal Tubes, by Dr. Southey; Collection of Specimens, illustrating the *British Pharmacopœia*, 1867, by Professor Redwood; Specimens of Aconitine, Meconine, Resin from the Seeds of Hyoscyamus, &c., also drawings and works of art, by Messrs. Morson; Extra Pharmaceutical Preparations, by Messrs. Savory and Moore; A new Medica

Lantern, and its application in Rhinoscopy and Laryngoscopy, Dr. Thudichum; Model of Ladd's Dynamo-Magneto Machine, by Mr. W. Ladd; Micro-Spectroscopes, with novel Specimens, prepared by H. C. Sorby, F.R.S., Sorby's Standard Interferences Spectrum, and New Spectrum Telescope, by Mr. Browning; Instantaneous permanent Photographs, enlarged Photo-micrographs, Medical Portraits, and miscellaneous, with an engraving of Barraud's "Hyde Park," by Mr. Ernest Edwards.

The visitors were received in the first room by the President, Dr. Alderson, in front of the portrait of Sir Thomas Watson, which excited much admiration.

In the small library adjoining, the action of sound upon jets of gas, as in the experiments of Professor Tyndall, was exhibited by Mr. Cottrell. The room was filled with a succession of visitors the whole evening, this apparatus proving one of the most interesting of the many amusements provided. The other articles in the programme were displayed in the large library. The sublimates of the alkaloids, and their photographs, called forth many expressions of pleasure. Dr. Thudichum's new medical lantern, made by Mr. Orchard, was for a long time closely surrounded by so large an audience that it was difficult to see it. The light is excellent, and obtained by projecting oxygen gas into the flame of a lamp playing upon lime. It is needless to say that all the microscopes, and microscopic specimens, were of the choicest kinds.

The Pharmaceutical preparations were also the finest specimens of the eminent firms who exhibited them. Among the *extra* drugs of Messrs. Savory and Moore, we may instance pancreatic emulsion and pancreatine, a compound syrup of phosphates or chemical food, and cod-liver oil combined with various drugs.

In the large room below, the College had provided refreshments for its numerous visitors. Here, also, everything went off in a most satisfactory manner. In all directions we have heard only expressions of pleasure at the opportunity afforded by the College for an agreeable professional *reunion*.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

THE eleventh annual meeting will be held in Belfast, from Wednesday 18th, till Wednesday, 26th September, 1867.

President.—The Right Hon Lord Dufferin and Clandeboye, K.P., K.C.B.

President of the Council.—The Right Hon. Lord Brougham.

Presidents of Departments, &c.—Jurisprudence: The Right Hon. Mr. Justice O'Hagan. Repression of Crime (Section): The Right Hon. The Master of the Rolls. Education: Thomas Andrews, M.D., F.R.S. Public Health: Sir James Y. Simpson, Bart. Social Economy: Sir Robert Kane, F.R.S. Trade (Section): John Mulholland, J.P.

General Secretary—George Woodyatt Hastings, Esq.

Foreign Secretary.—John Westlake, Esq.

Treasurers.—W. Strickland Cookson, Esq.; William Hawes, Esq.

Chairman of Local Executive Committee.—Professor Wyville Thomson, LL.D., J.P.

Local Secretaries—Professor Nesbitt, M.A., Queen's College, Belfast; W. Quartus Ewart, Esq, Donegall-place, Belfast; Henry Murney, M.D., J.P., Donegall-square East, Belfast; J. Arnott Taylor, Esq., Bridge-street, Belfast.

Local Treasurer.—W. J. C. Allen, J.P., Ulster Bank.

General Office of Association.—1, Adam-street, Adelphi, London, W.C.

Local Office.—Queen's College, Belfast.

LOCAL EXECUTIVE COMMITTEE.—*Chairman*—Professor Wyville Thomson, LL.D., J.P. William Bottomley, J. P.; Theobald Bushell, J.P.; W. Neilson Hancock, LL.D.; Henry Murney, M.D., J.P.; Joseph John Murphy, Esq.; Professor Nesbitt, M.A.; Robert Patterson, F.R.S.; Elias H. Thomson, Esq.; W. J. C. Allen, J.P., *Treasurer*. J. Arnott Taylor, Esq., *Hon. Secretary*.

DEPARTMENTS, AND SPECIAL QUESTIONS FOR DISCUSSION.

PUBLIC HEALTH.

President.—Sir James Y. Simpson, Bart. *Vice-Presidents.*—Professor Apjohn, M.D.; Samuel Browne, R.N.; William Dunville, J.P.; John Hancock, J.P.; Henry Mac Cormac, M.D.; William M'Gee, M.D., J.P. *Secretaries for Belfast Meeting.*—Professor Cuming, M.A., M.D., Wellington-place, Belfast.—(For Strangers.) James Girdwood, J.P., Clonaver, Strandtown.—(For Town.) Professor Redfern, M.D., 4, Lower Crescent, Belfast.—(For officers and papers.) *Permanent Secretaries.*—William Hardwicke, M.D.; William Rendle, Esq.

SPECIAL QUESTIONS FOR DISCUSSION.

1. What measures are necessary to secure efficiency and uniformity in the working of the Sanitary Laws throughout the kingdom?

2. In what respects do the Registration systems of England, Ireland, and Scotland need improvement? and is it desirable that they should be assimilated?

3. In what form, and to what extent is it desirable that the Public should provide means for the Recreation of the Working Classes.

The following ,are also suggested as suitable subjects for Voluntary Papers:—1. Improvement of the Dwellings of the Labouring Class. 2. The supply of Trained Nurses. 3. Town and Domestic Water Supply. 4. Infantile Mortality.

JURISPRUDENCE AND AMENDMENT OF THE LAW.

President.—Right Hon. Mr. Justice O'Hagan.

SECTION A.—(INTERNATIONAL LAW.)

Secretaries for Belfast Meeting.—David Ross, LL.B, Eccles-street, Dublin.—(To communicate with Strangers.) William Mulholland, Esq., 1, Portland-street, Dublin.—(To communicate with officers, and with reference to papers.) Andrew M. Porter, Esq., College-square East.—(For town arrangements.)

SPECIAL QUESTIONS FOR DISCUSSION.

1. Is it desirable that there should be an International Currency? and, if so, on what basis?

2. Is it desirable to establish a general system of International Arbitration? and, if so, on what principle should it be organised?

SECTION B.—(MUNICIPAL LAW.)

Vice-Presidents.—H. H. Joy, Esq., Q.C.; Professor Molyneux. *Secretaries for Belfast Meeting.*—Adam Duffin, Jr., Esq., 9, College-square North, Belfast.—(For Strangers.) Hugh Hyndman, Esq., Waring-street, Belfast.—(For town.) J. Lowry Whittle, Esq., 47, Kildare-street, Dublin.—For officers and papers.) Samuel Bruce, Esq., Donegall-place, Belfast.

SPECIAL QUESTIONS FOR DISCUSSION.

1. On what points should the Laws and Procedure of England and Ireland be assimilated?

2. Is it desirable to establish a Court of Criminal Appeal on the facts? and, if so, on what plan?

3. How far is it desirable to further centralise or localise the Administration of Justice?

SECTION C.—(REPRESSION OF CRIME.)

President.—The Right Hon. the Master of the Rolls. *Secretaries for Belfast Meeting.*—John Coates, Esq., Wellington-park, Belfast.—(For town) Constantine Molloy, Esq., 62, Lower Gardiner-street, Dublin.—(For officers and papers.) Wakefield Pim, Esq., High-street, Belfast.—(For Strangers.)

SPECIAL QUESTIONS FOR DISCUSSION.

1. What better measures can be adopted for the Repression of Crimes of violence against the Person?

2. How can the Organization of our Police be improved with a view to the more effectual Repression of Crime?

The following are also suggested as suitable subjects for Voluntary Papers:—1. Public Prosecutor. 2. Law of Copyright. 3. Secondary Punishments. 4. The Working of the Industrial Schools Act.

EDUCATION.

President—Thomas Andrews, M.D., F.R.S. *Secretaries for Belfast Meeting.*—Rev. J. Lowry E. Berkeley, Lurgan.—(For officers and papers.) John Lanyon, Esq, The Abbey, Whiteabbey.—(For town.) John O'Hagan, Q.C., 10, Kildare-street, Dublin.—(For Strangers.) Rev. E. J. Hartrick, M.A., Belfast.

SPECIAL QUESTIONS FOR DISCUSSION.

1. Is the "National" or "Denominational" system of Education best suited to the circumstances of Ireland?

2. What are the best means for improving the *status* o

Teachers, and for securing for the public sufficient guarantees for the efficiency of their teaching?

3. What is the best method for educating the Idiotic and Imbecile? and ought the State to subsidise educational establishments for such persons?

The following are also suggested as suitable subjects for Voluntary Papers:—The Extension of the Factory Acts. 2. Technical instruction supplementary to Primary School Education. 3. Night Schools.

ECONOMY AND TRADE.

President.—Sir Robert Kane, F.R.S.

SECTION A.—(SOCIAL ECONOMY.)

Secretaries for Belfast Meeting.—George L. Leatham, Esq., North-street, Belfast.—(For town.) John Munroe, M.A., Lower Gardiner-street, Dublin.—(For officers and papers.) Professor Slattery, Trinity College, Dublin.—(For strangers.)

SPECIAL QUESTIONS FOR DISCUSSION.

1. What legislative or other measures can be adopted to improve the relations between Landlord and Tenant in Ireland?
2. What are the economic results of the continuous Emigration from Ireland?
3. Should the Local Government Acts be extended to Ireland?

SECTION B.—(TRADE.)

Chairman.—John Mulholland, J.P. *Secretaries for Belfast Meeting.*—W. H. Dodd, M.A., 3, Albion-street, Belfast.—(For officers and papers.) Gustavus Heyn, Esq., Strandtown, Belfast.—(For strangers.) Frank Lepper, Esq., Trainfield, Belfast.—(For town.)

SPECIAL QUESTIONS FOR DISCUSSION.

1. Can any measures be taken to develop and extend the Manufactures of Ireland?
2. What action, if any, ought the Government to take with regard to Railways?
3. How may the extension of the Irish Fisheries be best promoted?

REGULATIONS CONCERNING PAPERS AND DISCUSSIONS.

The special questions, stated in the former part of this programme, have been drawn up by the commitees of the Departments, and will occupy each department during three days of the meeting.

No department or section will take up more than one such question on any day.

The Committees will obtain reports or papers to open the discussions of these questions, but any member or associate may contribute papers on them, subject to the following conditions:—

(*a.*) The paper must not occupy more than twenty minutes in reading.

(*b.*) Not more than one-half of the day will, under any circumstances, be given up to the reading of papers; the choice of papers for reading rests solely with the committee of the department, though the papers not read may be published in the *transactions* if the council think fit.

The report of the council to the association will embody information and suggestions sent to the general secretary by individual members.

No paper already published can be read.

No paper, when read, can be published by the author (unless by permission of the council) previous to the publication of the *transactions* of the Association for 1867.

The council may print any paper, either in whole or in part, or may exclude it from the *transactions*, as they see fit.

Each paper must be sent to the general secretary, on or before the 1st of September. On the first page of every paper should be written the question or subject, the name of the author, and his address.

REGULATIONS CONCERNING MEMBERS AND ASSOCIATES.

The members of the Association are of two classes—ordinary members and London members.

Ordinary Members.—Those who desire to serve on committees, or to take an active part in the proceedings of the Association, or who desire to have a copy of the volume of the *transactions* for the year, join as ordinary members, at a subscription of one guinea.

London Members.—Those who desire to have the additional privilege of attending the meetings held in London, during the winter, of departments of the association; to receive the publications connected therewith, and to have the use of the library of the association in London; pay a subscription of two guineas.

Transferable Ladies' Tickets.—Ladies may obtain transferable tickets for the meeting at Belfast for fifteen shillings.

Associates.—Gentlemen and Ladies may obtain associates' tickets (not transferable) for the meeting at Belfast for ten shillings.

Corporate Members.—Any public body, such as a chamber of commerce, mechanics' institute, working men's college, &c., may become a corporate member by paying an annual subscription of two guineas. Such bodies will get the volume of *Transactions*, and may nominate three representatives for the meeting, who will get associates' tickets.

Correspondence.

MEDICAL CORPORATE REFORM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—You have spoken out about the grievances incidental to the College of Physicians, so far as its Fellowship is involved. But there are other matters that, now you have opened the great question of medical corporate reform, equally deserves your attention. I beg you to give them all as full and fair a consideration. Have you nothing to say about the Licentiates of that body? They are spreading over the country, and dubbing themselves doctor with an effrontery equal to the Edinburgh licentiates, and unless something be done the whole College will soon be dragged through the mire just as it was in irritating the north in the year of grace, "so called" you justly add. You admit some would demur to the title. I call it the year of disgrace.

A FELLOW.

ELECTION TO THE FELLOWSHIP OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your remarks on the process of election to the Fellowship of the Royal College of Physicians will find an echo throughout the kingdom. Now that the sister College in Lincoln's Inn Fields has begun to act, it is time the old club in Pall-Mall should be invaded by the same spirit. The recent granting of licences to practise, in the hope of eclipsing the other bodies, is neither more nor less than raising the wind at the expense of the status of the old licentiates and modern members. These latter pay thirty guineas for the privilege of belonging to a college of physicians which is rapidly deteriorating into a college of general practitioners. The few who obtain the Fellowship are the personal friends of the self-elected Council. Abler men, more modest men, more laborious men, languish among the members, and sigh as each year's batch reminds them that they are growing old unrecognised. Any one could point out the names by the dozen of those who deserve well of their profession. Why are they not rewarded by the Pall-Mall College?

Go on, sir, with the battle you have begun. Men in high office in the College have admitted to me the justness of your remarks. Already your contemporaries have taken up the subject. You started it. Persevere until the monopolists are shamed into justice.—I am, sir, your obedient servant,

M. D.

IRISH MEDICAL OFFICERS' WIDOWS' ANNUITY SOCIETY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—I feel extremely obliged for your letter, received this morning, enclosing the printed rules of the Irish Constabulary Officers' Widows' Annuity Society. The observations I made in the MEDICAL PRESS AND CIRCULAR of the 17th instant, relative to your two recent letters published in that excellent Journal, are only in keeping with your merits. You have been long labouring hard in the cause of the widows and orphans of medical men. Your cause is a righteous and holy

one, and well deserving of support from every member of the medical profession. All that surprises me is that the medical profession do not gladly avail themselves of the sound and wise proposals you have made for the welfare of their widows and orphans, and that they seem so dead to their own interests. The members of the medical profession are proverbial for their charity and benevolence to others—Why is it that they are found wanting when the interests of their own households are concerned? In the time of distress, will they trust to the scanty pittance which the Irish Medical Benevolent Fund Society is enabled to give to its numerous claimants, when a certainty may be realised for their widows and orphans by a small annual subscription to a society specially formed for this purpose. In the first instance, the small pittance is urgently sought and given as a charity; in the second, the assistance is demanded as a right. How much more independent then would the profession be if your views were fully carried out. How much happier would each medical officer of a dispensary or workhouse feel himself, if it should be the will of God to take him away before he had made a provision for his family—and how many have been called away prematurely without having made such provision, you know too well—to know that there is some provision made for his wife and children under such afflicting circumstances. Why, the knowledge of such a fact alone will prevent him from sinking prematurely into his grave, it will be a comfort to him under all his difficulties, and will sweeten the labour he is constantly undergoing. The plan you have laid down so clearly for the working of the Irish Medical Officers' Widows' Annuity Society is so well defined and simple in all its arrangements that I have not a single improvement to suggest. If the Society were once established by Government, and aided by the Poor-law Commissioners, it would flourish, and would prove an immense blessing to the profession. How such a glorious consummation is to be effected is the difficulty. But God will not forsake those that trust in Him, and try to help themselves—the united action of the profession would prove irresistible if brought properly into play with the Poor-law Commissioners and the Government. It is on this account that I consider that the Irish Medical Association, which is the proper representative of the profession, ought to take upon itself the responsibility of this holy cause.

I have no objection to agree to any means which may be suggested for the furtherance of this great, this grand, this momentous undertaking, provided the end is attained in all its integrity, and I perfectly agree with you that the time appears ripe for the movement, and everything which ought to be done should be done quickly.—I remain, yours most truly,

M. F. BERNARD.

THE CASE OF DEASE *v.* WHISTLER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—A few comments *apropos* of the Dease *v.* Whistler case, and others of that kind, may not be amiss. And first, I would observe that this case goes to show that the so-called censures of Dispensary Committees are not things to be greatly dreaded, and that they may in the result turn out to be censures, *not* of the Medical Officer, but of the Committee themselves; for is not this whole case a strong censure of the Bray Committtee, and of that pragmatical gentleman, the plaintiff, especially?

I will further observe, in reference to a statement I read in the *Daily Express* of the 18th inst., and a similar case recorded in the *Ballyshannon Herald* of last Saturday, that if Medical Officers only knew their rights, and would assert them, neither Committees nor Boards could refuse to maintain a substitute under the circumstances in which these two gentlemen (Drs. Whistler and Welsh) have been placed. Read and study the 22nd article of the Commissioners' "General Rules," and you will see that when the Medical Officer is incapacitated by illness from doing his duty, the Committee is to meet to appoint a substitute, and the Board is to determine the amount of payment. This plainly implies that said Board is to pay the substitute.

I would further enjoin on my brethren that they be not afraid to assert their rights; let them not be afraid even of investigations when they have a good cause.

I have tried these things, and will be happy to communicate the result of my experience to any honest man (of whom I believe there are many) among my brethren. But as to those who think by tame submission, or servile flattery, to conciliate favour—they will be disappointed, and justly too. The more they yield up their just rights and self-respect, the greater burthens will be imposed on them. "If the Romans are sheep, Cæsar will be a wolf." Let us show a just appreciation and assertion of our own position, and of the valuable services we unquestionably render to society, and we shall be better treated. Do we not expose our lives in attending contagious diseases for salaries for which the meanest and most ignorant members of our committees would be unwilling to undergo the same risk? Do we not stand between the community on the one hand, and disease and death on the other, as far as such service can be rendered by human means?

Again, I say let all who are circumstanced as above carefully consult the Commissioners' General Order.

I am happy to be able, in conclusion, to bear my humble testimony in confidence that the Commissioners will generally arbitrate reasonably and, I believe, justly.—I am, sir, yours, &c.,

"DISPENSARIUS."

SEA-SICKNESS AND THE BRITISH MEDICAL ASSOCIATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—You have recently called the attention of your readers to my discovery of a remedy for sea-sickness. It occurs to me that as you invited the Profession to test its reality, an excellent opportunity of doing so is about to occur: English members of the British Medical Association, about to meet in Dublin, will have to cross the Irish Channel; and, of course, the English Channel must be crossed by all who proceed from the United Kingdom to the Medical Congress at Paris. Now, in order to induce medical gentlemen to assure themselves of the reality of my discovery, that sea-sickness may be prevented or cured by means of the spinal ice-bags, I beg to say that I shall be happy to lend a spinal ice-bag to each of those medical men who may be willing to use it, and to report the result of the experiment. Moreover, I have arranged with Mr. Simpson, of 315c, Oxford-street, the proprietor of Ash's Patent Filtering Refrigerator, and Piston Freezing Machines, to supply gratis, packed for transit, the amount of ice necessary for each bag.—Yours truly,

JOHN CHAPMAN.

Somerset-street, London, W.

Gleanings.

MEDICAL ORTHODOXY AND HERESY IN THE OLDEN TIME.—It was not always thus. The inimitable plays of Molière, the essays of Montaigne, the marvellous satires of Rabelais, contain many traces of a period when the strife between orthodoxy and heresy was as fierce and as full of bigotries on both sides in medicine as it ever was in the still greater controversies of religion. The letters of Gui Patin, Dean of the Faculty of Medicine of Paris in the middle of the seventeenth century, have stereotyped for us and for all time, with the most charming frankness and simplicity, a state of opinion in which the circulation of the blood was still an almost forbidden faith more than thirty years after the facts were made clearly known by Harvey—a time in which all manner of chemical remedies were prescribed by a dominant opinion, as being unknown to Galen and Hippocrates—in which bleeding and purging figured as the authorised remedies for nearly all diseases and all stages of them—in which antimony and Peruvian bark were denounced with equal bitterness—the one as savouring of the "chemists," the other as the "powder of the Jesuits"—in which tea was an "impertinent novelty of the age," and opium nothing better than a poison—in which, in short, the established orthodoxies of that particular era had to be maintained out and out, and were in fact maintained out and out, both as against old and new opinions—against Arabian traditions and modern innovations—with equal pertinacity; and, no doubt, in many instances, as in that of our charming and garrulous Gui Patin, with equal good faith.

There was scarcely anything a-wanting in the midst of these acrimonious controversies to complete and to justify the satirical picture of Thomas Diafoirus in the pages of Molière: a simpleton by nature, turned by art into a physician; drilled and tortured through a course of formal logic and pedantic learning into a regular round of fixed opinions; his mind "well broken in and laced up in Spanish boots," as Gœthe has it, to the utter destruction, not only of all originality, but of all desire for originality. "We had all the trouble in the world (such is the picture) to teach him to read; he was nine years old before he knew his A B C. . . . . When I sent

him to college he was much distressed at first, but he hardened himself against all difficulties, and his regents always praised him to me for his assiduity and for his work. At last, after many strokes of the hammer on the iron, he has gloriously attained his diploma; and I can say, without vanity, that for the two years during which he has been upon our benches no candidate has made more noise than he in all the disputations of our school. He has become formidable, in fact; there is not an act (*i e.*, a public disputation) that he does not argue tooth and nail, right or wrong, for the contrary proposition. He is firm in disputing, strong as a Turk on his principles, never gives in an inch of his opinion, and pursues a verbal argument into the very uttermost recesses of logic. But, above everything, that which pleases me in him, and in which he follows my example, is that he attaches himself blindly to the opinions of our forefathers, and that he has never chosen either to comprehend or to listen to the reasons and the experiments of those pretended discoveries of our age touching the circulation of blood, and other opinions of the same kidney."*

The old Faculty of Medicine fell, having done its work both of good and of evil; it could not survive in an era of experimental physiology; the circulation of the blood was too much in the end for all the learning and all the orthodoxies of that most learned and most orthodox age. Still, we must not be unjust. The Faculty was not always obstinate, nor always in the wrong; and even our honest Gui Patin, though prejudiced and bitter against what he thought to be quackery and causeless innovation, was by no means a Thomas Diafoirus. On the contrary, one sees in his letters everywhere the spirit of a true-hearted and genial physician, fettered, it is true, by traditional and authoritative opinions, but protesting with all his might against complicated and quackish remedies, bezoards, theriac, mithridate, as well as against all "occult qualities," alchemy, astrology, talismans, charms, and other manifest impostures. Nor can there be a doubt that his resistance to the progress of antimony and Peruvian bark were the testimony of a thoroughly honest and upright man against many and gross abuses in practice, upheld in the end by the sympathy of the court, and, strange to say, by the support of that same Faculty, with whose authority he had so often fortified his denunciations of Guénaut and the antimonialists.

The history of this last dispute is curious, and may be here condensed into a very few sentences. In 1566, the Faculty of Medicine had taken solemn action in the case of antimony, which the extravagant praises of Paracelsus and the chemists had brought into a kind of popular repute. Their decree was apparently unanimous, and was to the effect that "by the authority of all who have been distinguished in medicine, and for reasons already submitted to the king, *antimony is deleterious, and to be counted among the simples which possess the quality of poisons. Nor can it be amended by any other preparation, so as to be taken without injury.*"† In 1615, another decree placed several chemical drugs, antimony included, under formal condemnation of the Faculty, which, "by the unanimous consent of all," interdicted drug-vendors and all others from uttering these drugs; and "calls upon all judges to deal severely with those who prescribe, administer, or exhibit for sale the said medicines "‡ Both of these Acts were ratified by the Parliament of Paris, and both of them continued nominally in force till 1666, exactly a century after the passing of the first. But, in the meantime, antimony was gaining ground, quickened, no doubt, into a kind of popular fictitious reputation by the opposition of the doctors, till at last both Cardinal Mazarin and the King had been submitted to treatment by it at the hands of Guénaut, and after a controversy altogether unexampled in its fierceness and extravagance upon both sides, the balance in the Faculty itself began to incline in favour of antimony. Even so late as 1651, however, Guénaut, Beda, and Cornuti were formally condemned by the Faculty for being led away by antimony, "*spe lucri*," writes Patin confidentially; and this sentence, he adds in high jubilee of triumph, "has made them return to their duty, and if hereafter they fail in it, we will not fail them; we will apply the law and the power of the decree so keenly that they will remain expelled by it. . . . If we had suffered these three there, they would no doubt have attracted others, by the rule *Abyssus Abyssum invocat.*"* But, alas! for big words and high-handed judgments! In 1666, when Patin was no longer Dean, having been replaced by Le Vignon, the Faculty of Medicine of Paris again met on the 29th March, and "in an assembly of one hundred and two, decided by the vote and suffrage of ninety-two doctors, that *antimony is to be numbered among purging medicines, and that it shall be in the power of every doctor to prescribe it*, on fitting occasions, and to write and dispute publicly about it, provided always that these things are done for the general good." This decree was also confirmed, like the former ones, by an edict of the Parliament of Paris; which, however, added a prohibition to all persons against the use of this medicine without the advice of the Faculty.†

One may imagine the disgust of Gui Patin at being thus foiled with his own weapons, and seeing his beloved Faculty invaded in force by the "*troupe stibiale et stigiale*,"‡ as he calls them in his somewhat savage irony. "I console myself," he writes, "because there must be heresies, in order that the good may be tried; but I have never been of the humour to adore the golden calf, nor to consider fortune as a goddess. . . . When the wind shall have changed, all these champions of antimony will be dispersed like the smoke of their furnace." And so he withdraws quietly from the controversy. We hear little more either of Patin or of the much-abused Guénaut thereafter in the Faculty of Paris. Guénaut, indeed, died the next year of an apoplexy, as we learn in a brief paragraph of a letter under date 17th May, 1667. It is curious that not a trace remains of the personal history, or of the professional labours of this great disturber of orthodoxy in the seventeenth century. Boileau mentions him twice, in neither place in a complimentary manner. He is supposed to have furnished forth the dramatic portrait of M. Macroton, by Molière, in the Amour Medecin. It may be, perhaps, fairly presumed that the reproaches of the old Dean of Faculty were not altogether undeserved, and that this arch-antimonialist was one of those nimble and shifty persons who study much more effectually the art of putting money in the purse, than of adding to the real knowledge and resources of the art of medicine.—*Dr. Gairdner's Introductory Address.*

SPECTRES.—The whole family of the Phasmidæ, or spectres, is more or less imitative, and a great number of the species are called "walking-stick insects," from their singular resemblance to twigs and branches. Some of these are a foot long and as thick as one's finger, and their whole colouring, form, rugosity, and the arrangement of the head, legs, and antennæ are such as to render them absolutely identical in appearance with dead sticks. They hang loosely about shrubs in the forest, and have the extraordinary habit of stretching out their legs unsymmetrically, so as to render the deception more complete. One of these creatures obtained by Mr. Wallace in Borneo (Ceroxylus laceratus) was covered over with foliaceous excrescences of a clear olive green colour, so as exactly to resemble a stick grown over by a creeping moss or jungermannia. The Dyak who brought it assured him it was grown over with moss although alive, and it was only after a most minute examination that he could convince himself it was not so.—*Westminster Review.*

PARIS STATISTICAL SOCIETY.—This learned body intends having six public *seances* (August 19th to 24th), and any foreign *savants* wishing to be present are requested to put themselves in communication with M. Golzard, the agent of the Society, 92, Rue Richelieu, who will forward them programmes of the questions to be discussed, and will receive from them any papers they may wish to have read pertaining to such questions. The programme embraces the population question, emigration, illegitimate and still-births, division of property, credit establishments, primary instruction, and public assistance.—*Medical Times and Gazette.*

No alterations have been made in the Vaccination Bill although it has been referred to a select committee of the House of Lords. It will be for the profession now, whatever faults it may have to find with the Bill, to accept it, and to work it thoroughly. If the measure is found not to work well, or to impose too much work for too little pay on the profession, we shall make complaint all the more effectually after a hearty trial of the Bill.—*Lancet.*

* Le Malade Imaginaire, Act 2, Sc. 6.

† Facultatis de Antimonio Censura. Decretum in Scholis Medicinæ, tertio Calend. August, anno 1566.

‡ This, with the preceding, I have taken from a foot-note in the edition of Gui Patin edited by Reveillé-Parise, vol. i., p. 191. The Latin text is, however, extremely ill printed, and barely intelligible as there given.

* Op. Cit., vol. ii., p. 387.

† Patin's letters, *ut supra*, vol. iii. p. 609, gives the decree of the Parliament; that of the Faculty I have found in Raynaud, "Les Medecins au temps de Molière. 1862," p. 212.

‡ Lettres de Gui Patin, Vol. 2, p. 96.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 23rd inst. :—

Messrs. Henry Culliford Hopkins, Martock, Somerset; Humphrey Lloyd Williams, Bala, Merionethshire; Nathaniel Howard Jarvis, Kingsbridge, Devon; Haswell Delabere Shelton, Bromyard, Herefordshire; and John Griffith Lock, M.A., Cantab., Tenby, South Wales, students of St. Bartholomew's Hospital; William Charles Gasteen, M.B. Trin. Coll. Dub., Dublin; William Isaac Williams Aoergele, North Wales; Henry George Hall, Dublin; and Richard Arthur Pritchard, Pwllheli, North Wales, of the Dublin School; William Alfred Hunt, Yeovil, Somerset; and Samuel Freeman Bagnall, L.R.C.P. Lond., Bedford-square, of King's College; Thomas Fawsitt, Oldham; and William Hodgson Carruthers, Halton, Cheshire, of the Manchester School: Joseph Chaning Pearce, Bristol; and Thomas Dudley Saunders, Bath, of the Bristol School; Charles Newton Bell, Rochester; and Alexander Cummings Air, Walworth, of St. Thomas's Hospital; Charles Sangster, L.S.A., Lambeth-terrace, of Guy's Hospital; Charles Henry Lister, Doncaster, of University College; Robert Alcock, Burslem, Staffordshire, of the Charing-cross Hospital; Frederick Churchill, M.B. and C.M. Edin., Penge, Surrey, of the Edinburgh School; Edmund Cuthbert Ring, Foxley-road, Kensington, of St. George's Hospital; and William Edward Green, Droitwich, of the Birmingham School.

At this meeting of the Court of Examiners, Professors Samuel Solly and Sir William Fergusson, the recently elected members of the Board, took the chairs rendered vacant by the resignations of the late Sir William Lawrence and Mr. Francis Kiernan respectively. And on the 24th inst. :—

Messrs. Oswald Henry Foster, M.A. Cantab., Hitchin, Herts; Augustus Wells, Sydney, New South Wales; Frederick Aubrey Thomas, L.R.C.S. and L.R.C.P. Edinburgh, Devonport; and William Henry Rawlings, Liskeard, Cornwall, students of Guy's Hospital; Charles Dennis Hill Drury, Newcastle; George William Geldart, North Shields; Edward Rray Pellew, Gateshead; and George Bolton, Sunderland, of the Newcastle School; James Peter Bryne, Glenealy, county Wicklow; and Thomas Castley Bailey, Penrith, of the Dublin School; Joseph Moore, Manchester; and Edward Reginald Johnson, Jersey, of St. Bartholomew's Hospital; Charles Ogden, Rochdale, of the Liverpool School; Francis Raworth Heycock, Pytchley, Northamptonshire, of the Edinburgh School; Louis Marc Le Grand de la Liraye, L.R.C.P. London, Paris, of University College; Henry Walmsley, Preston, Lancashire, of St. Thomas's Hospital; John Thomas Hughes, M.B. Aberdeen, Llanrwst, North Wales, of the Aberdeen School; Robert Lewis Willcox, L.S.A., Wareham, Dorset, of King's College; and Thomas Standish, Dudley, of the Birmingham School.

And on the 25th inst. :—

Messrs. Lewis Evan Evans, Granville-square, Edward Henry M'Clean, Barbadoes; and Edgar George Pottle, City-road, students of St. Bartholomew's Hospital; Atmaram Sadashiva Jayakar, L.R.C.P. Lond., Bombay; Joseph Gerson Da Cunha, Goa; and Antonio Simplicio Gomes, Hongkong, of the Bombay School; Walter Herbert Mills, Cape Town, George Thomas May, Burslem, Staffordshire, and George Mannings, Downton, near Salisbury, of King's College; Frederick Henry Blenkinsop, Bedford; and Thomas Henry Lovegrove, Nottingham, of St. George's Hospital; John Strelley Carslake Yule, Bury, Lancashire, and William Richard Davies, M.B. Lond., Carmarthen, of University College; James Dunne, Dunshaughlin, County Meath, and Henry Worsley, Golborne, Lancashire, of the Dublin School; Frederick Wallace, L.S.A., Hackney-road, of Guy's Hospital; Laurence Saunders, M.D., Kingston, Canada; Charles Richardson, Leeds, of the Leeds School; John Waterhouse Daniel, M.D., Bellevue, New York, Nova Scotia, of the London Hospital; John Stride, King William-street, E.C., of St. Thomas's Hospital; William Edward Baylie, Poole, Dorset, of the Charing-cross Hospital; Donald William Robertson, Thornton, Yorkshire, of the Edinburgh School; and Kenrick Morton Lloyd, Holywell, Flintshire, of St. Mary's Hospital.

It is stated that only nine out of the seventy-four candidates who presented themselves for examination during the past three days, failed to acquit themselves to the satisfaction of the Court of Examiners, and were, consequently, referred to their hospital studies for the full period of six months. The examinations for the present session at the College of Surgeons, are now closed, with the exception of one meeting on the 1st proximo, for the licence in midwifery.

UNIVERSITY OF LONDON.—The following are lists of Candidates who passed the respective Examinations indicated :—

PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

First Division.—Edward Bibbins Aveling, private study; James Barry Ball, University College Hospital; Frederick Settle Barff (student before '39), chemistry and botany only, University College; John Mitchell Bruce, M.A.Aberd., University of Aberdeen; William Barnett Burn, St. Bartholomew's Hospital; Charles Henry Carter, University College; Ernest Alfred Elkington, Sydenham College, Birmingham; Alfred Thomas Gibbings, King's College; James Alfred Harris, University of Edinburgh; Michael Harris, Guy's Hospital; Horace Eyre Haynes, St. Bartholomew's Hospital; Thomas Henry Hunt, Manchester Royal School of Medicine; Arthur Richard Saunders, University College; Alfred John Wall, St. Mary's Hospital.

Second Division.—Philip Henry Bindley, Sydenham College, Birmingham, William Frederick Richardson Burgess, Guy's Hospital; William Ward Carr, University College; Alfred Henry Carter, University College; Alfred Cotterill, King's College; Sidney Coupland, University College; Francis Richardson Cross, King's College; Henry Eugene DeMeric, King's College; John Ellis Edwards, Guy's Hospital; Thomas Colcott Fox, University College; George Cooper Franklin, St. Thomas's Hospital; John Cameron Graham, University College; George Ernest Herman, London Hospital; Joseph Theodore Ingoldby, Guy's Hospital; Thomas Jones, Guy's Hospital; Walter George Lowe, St Bartholomew's Hospital; Robert Wishart Lyell, King's College; Henry Davis Male, St. Thomas's Hospital; William Smith Paget, Liverpool School of Medicine; Charles Edward Steele Perkins, Guy's Hospital; Walter Pippette, Westminster Hospital; Rhinallt Navalw ap Joan Pughe, private study; Alexander Antonio Ralli, St. Bartholomew's Hospital; John Alexander Rayner, King's College; George Le Hunt Rowland, King's College; Baron Alfred Rugg, University College; Maximilian Frank Simon, St. Thomas's Hospital; Samuel George Sloman, St. Bartholomew's Hospital; Arthur William Smith, Guy's Hospital; Henry Edward Southee, private tuition; William Whitchurch Taunton, University College; Henry Edward Waddy, Guy's Hospital; William Henry Willans, University College; William Williams, Guy's Hospital.

FIRST B SC. EXAMINATION.

First Division.—James Bottomley, B.A., Owens College; Francis James Carey, M.A., Guy's Hospital; William Gunn, private study; Percy John Harding, University College; John Hopkinson, Owens College; Arthur Robinson, Owens College; William Augustus Tilden, private study; Richard Wormell, M.A., University College.

Second Division.—James Barry Ball, University College; Seward William Brice, B.A., Royal School of Mines; John Albert Bright, University College; John Cameron Graham, University College; Rev Frederick Leonard, M.A., LL.B., Baptist Bristol, and University; Henry Mander Pearsall, B.A., New and University Colleges; Charles Sheldon, B.A., Owens College; William Thorp, Royal School of Mines; George Mathews Whipple, private tuition.

HOSPITAL SHIP HAMADRYAD.—The first report from the committee of this hospital has appeared. The *Hamadryad* was obtained from the Goverment for the reception of sick seamen arriving at the port of Cardiff. She can accommodate 50 patients, and was formally opened in the beginning of November. During the six months ending the 30th of April last, 254 in, and 290 out-patients were treated. The report says that 11 per cent. of all medical cases entered were suffering from scurvy.

HONORARY DEGREES.—We are enabled to supplement the information contained in another part of our issue on this matter. The King and Queen's College of Physicians in Ireland have decided on granting eight Honorary Fellowships in connection with the meeting of the British Medical Association in Dublin. We believe we are correct in stating that the following gentlemen will be recipients of the honour: Dr. J. Hughes Bennett, of Edinburgh; Dr. A. P. Stewart, of London, Secretary of the Metropolitan Branch of the Association, and late Professor of Practical Medicine in the Middlesex Hospital; Dr. G. T. Greame, Physician Accoucheur to the Princess of Wales; Mr. Lockhart Clarke, F.R.S., the celebrated Microscopist and Physiological Anatomist; Dr. Markham, Physician to St. Mary's Hospital, and formerly Editor of the *Association Journal*; Dr. Waters, of Chester, the outgoing President, and Dr. Falconer, of Bath, Treasurer of the Association, and President of the Local Branch. The recipient of the eighth Fellowship has not yet been decided.

NOTICES TO CORRESPONDENTS.

All Contributions are attentively considered, and unaccepted MSS. are returned on receipt of stamps for postage; but the Editors cannot be responsible for any accidental loss, nor can MSS. or replies be delivered on personal application.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

M. Firth.—We hope to find room for your communication in our next.

Dr. Letheby is thanked for his valuable paper. Proofs will be sent him as requested.

Dr. Macallister's paper on the Physiology of the Gall Bladder, has been received, which we hope to be able to publish in a week or two.

Dr. C.—Your request has been attended to.

A Unique Case, by *W. H. Sandham*, shall appear as soon as possible.

Dr. J.—The evidence forwarded is too long for publication, although its importance to the profession and the public at large is readily admitted. We can only find room for a few extracts.

F. M.—We are unable to trace anything in your paper to warrant its publication.

Dr. P. J. is thanked; we cannot, however, find space at present to reopen so useless a discussion.

Dr. K.—Wouldn't you like it! Sorry to disappoint you.

We have also been favoured with several other valuable contributions, letters, reports, &c., which shall appear as soon as space permits.

MEDICAL APPOINTMENTS.

ENGLISH.

DUDLEY, J. D., M.D., has been appointed Assistant-Physician to the Metropolitan Free Hospital, Devonshire-square, vice E. Head, M.B., resigned.

Duke, R., F.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for districts Nos. 1 and 2 and the Workhouse of the Battle Union, Sussex, vice H. M. Champneys, F.R.C.S.E., resigned.

Evans, T., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Britonferry District of the Neath Union, Glamorganshire.

Hill, J. H., L.R.C.P.Ed., has been appointed House-Surgeon to the Royal Free Hospital, Gray's-inn-road.

Longheed, J. W., L.R.C.S.I., Assist.-Surgeon 56th Foot, has been appointed Staff Assist.-Surgeon, vice Stafford, who has exchanged.

Preston, A. F., M.B., Surgeon 27th Foot, has been appointed Assist.-Surgeon Royal Artillery, vice Bouchier, placed upon half-pay.

Scott, J. E., M.D., Surgeon Rifle Brigade, having completed twenty years' full-pay service, has been promoted to Surgeon-Major under the provisions of the Royal Warrant of April 1st, 1867.

Stafford, P. W., L.K.Q.C.P.I., Staff Assist.-Surgeon Army, has been appointed Assist.-Surgeon 56th Foot, vice Longheed, who has exchanged.

Lewis, J., M.D., has been appointed Medical Officer and Public Vaccinator for the Glyncorrwg (a new) District of the Neath Union, Glamorganshire.

Russell, F. M., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Eastern District of the Neath Union, vice H. L. Prichard, M.R.C.S.E., resigned.

Williams, Dr. Chas. T., has been appointed Assistant-Physician to the Hospital for Consumption and Diseases of the Chest at Brompton.

IRISH.

Anster, W. B., L.K.Q.C.P.I., has been elected Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Kennitty Dispensary District of the Parsonstown Union, King's County, vice H. L. Smith, L.K.Q.C.P.I., resigned.

Atkin, J. M., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Tartaraghan Dispensary District of the Lurgan Union, Co. Armagh, vice G. G. A. Sutcliffe, M.R.C.S.E., resigned.

Davy, H., M.B., has been appointed Medical Officer for the Northern Division of Rathfarnham and Whitechurch Dispensary District of the South Dublin Union, vice R. P. White, L.K.Q.C.P.I., resigned.

SCOTCH.

Benny, M., M.D., has been appointed Medical Officer and Public Vaccinator for the Parish of Denny, Sutherlandshire, vice James Cuthil, M.D., resigned.

Kidd, W. J. P., M.D., has been appointed Medical Officer and Public Vaccinator for the Parish of Ballantrae, Ayrshire, vice J. F. M'Gill, L.F.P. & S.Glas., resigned.

Births, Marriages, and Deaths.

BIRTHS.

Christophers.—On the 12th inst., at Skisdon Lodge, St. Kew, Cornwall, the wife of J. C. Christophers, F.R.C.S.E., of a son.

Brown.—On the 12th inst., at Uppingham, Rutland, the wife of Frederick Warren Brown, M.R.C.S.E., of a son.

Macdonald.—On the 17th inst., at Haslar, the wife of Dr. J. D. Macdonald, Staff Surgeon, R.N., of a daughter.

Horn.—On the 18th inst., at Dalton in Furness, the wife of William Horn, Surgeon, of a daughter.

Wigmore.—On the 18th inst., at Inverness-road, Bayswater, the wife of Wm. Wigmore, M.R.C.S.E., of a son.

Tanner.—On the 19th inst., at Gloucester House, Ledbury, the wife of Robert Tanner, M.D., of a daughter.

Crocker.—On the 17th inst., at Belfast, the wife of Surgeon-Major Crocker, the Buffs, of a daughter.

Dickson.—On the 21st inst., at No. 1, The Square, Buxton, the wife of Dr. F. K. Dickson, of a son.

Propert.—On the 22nd inst., at 100, Gloucester-place, Portman-square, the wife of J. L. Propert, Esq., M.B., of a son.

Turner—On the 20th inst., at Woodside, Upper Norwood, the wife of J. Sidney Turner, M.R.C.S., of a daughter.

MARRIAGE.

Niven—Webster.—On the 25th inst., at the house of the bride's father, by the Rev. John Thomson, F.C., the Rev. W. Niven, Innerleithen, to Jane Anne, only daughter of A. Webster, Esq., L.F.P.S.G., Kirriemuir.

DEATHS.

Ward.—On the 21st ult., suddenly, J. Ward, M.R.C.S.E., of Epsom.

Stillwell.—On the 22nd ult., G. J. Stillwell, M.D., of Park-street, Grosvenor-square, and Moorcroft, Hillingdon, Middlesex.

Tutin.—On the 17th inst., J. H. Tutin, M.R.C.S.E., of Ripon, Coroner for the Liberty of Ripon, aged 36.

Newham.—On the 22nd inst., Samuel Newham, M.R.C.S.E., of Bury St. Edmunds, aged 47.

Bryant.—On the 1st inst., John Bryant, M.D., at his residence, Collebrooke-villa, Finchley, formerly of the Edgeware-road, in his 80th year.

Davies.—On the 18th inst., Mary Maria Davies, widow of the late Thomas Davies, M.D., of New Broad-street, City, at 18, Lorraine-place, Holloway, in her 4th year.

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UNIVERSITY COLLEGE MEDICAL DINNER.

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Lecture.

CLINICAL LECTURE ON NERVE DISORDER PROVING FATAL, UNATTENDED WITH DEMONSTRABLE LOCAL CHANGE.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.
PHYSICIAN TO ST. MARY'S HOSPITAL.

GENTLEMEN,—At our last meeting I told you that I should ask your attention shortly to the difficulty which is not unfrequently met with of determining the cause of various grave symptoms of central nervous affection. The inquiry in each instance is of the greatest importance, for on the conclusion we adopt our prognosis and treatment necessarily depend. The causative conditions we have to do with may be grouped in three sets:—1. Cases where, after death, some evident lesion is found, as a tumour, an embolon, a patch of syphilitic deposit, a limited focus of hæmorrhage, a softening from atheromatous disease of the vessels. 2. Cases where renal degeneration exists and consequent uræmia, or where the blood is contaminated by the gouty or any other tangible materies morbi. 3. Cases where the nerve power has been depressed by a shock, as that of an operation on the urethra, or by some imponderable miasm like that of epidemic catarrh, and where, after death, no organic alteration can be discovered. To this group belong also the instances of reflex, or inhibitory paralysis, dependent on remote irritation.

With regard to the first group, *time* is the most important element in the diagnosis, or rather may be, for, of course, if the case is recent we are deprived of all aid from this source. If a palsy has occurred some weeks or months ago, and persists, amending slowly and uncertainly, or, *a fortiori*, if it deteriorate in spite of all means employed, little doubt can exist that it depends on some demonstrable organic lesion. On the other hand speedy disappearance does not amount to a proof of the absence of such lesion, but it can hardly have been extensive. *Age* is another consideration which may be of much weight, a palsy in an old person is, *cæteris paribus*, more likely to be of organic origin, than in a young. *The previous history* may furnish valuable information, traces of former syphilis would make it probable that there existed intra-cranial deposit of specific origin, and the existence of valvular cardiac disease would suggest the occurrence of arterial obstruction in the cerebral circulation. On the other hand, the knowledge that the patient was an epileptic would lead us to regard an attack of hemiplegia as probably dependent on the temporary prostration of nervous power induced by the fit, and a previous history of ague and neuralgia might lead us to enquire narrowly whether the brain disorder might not be of the same character. A tolerably *sound and vigorous state of general health* is, in not a few instances, more significant of the organic origin of nerve disorder than a broken and enfeebled. In a person who has been subjected to causes of serious exhaustion, it is not unlikely that the failure may depend solely on deficiency of nervous energy, the general debility being intensified in a particular locality, but this view is out of the question when there is no general debility at all, and the disorder has supervened in the midst of perfect health. *Hereditary tendency* must not be left out of our reckoning. We may hear, on enquiry, that there is a marked liability in the family to head attacks (usually apoplectic) at a somewhat advanced age, or that they are prone to the gouty or neurotic diathesis, and this information may help us to come to a correct conclusion. The *mental character* should also be regarded. Organic lesion is much more likely to be the cause of brain disorder (supposing it present) in a person usually of sound, active, strong mind, than in a semi-hypochondriac whose nervous energy has long been below par. In disorders of organic origin, *the sphincters or the detrusors are more or less enfeebled or paralysed* in the great majority of instances, while in functional disorders they are, as a rule, exempt. According to Brown Séquard, the *temperature of the affected parts* in disorders belonging to the first group is usually high, contrary to what is observed in cases of functional derangement.

The diagnosis of the second group may generally be made from the information afforded by careful examination of the urine. If this lead us to the conclusion that the blood is contaminated by retained urinary excreta, it is almost a matter of certainty that existing nervous symptoms are more or less completely dependant upon this cause. Yet, as a case I shall relate presently shows, organic lesion may occur as an important complication in patients who have appeared to be suffering solely from uræmia. You must not, therefore, conclude too readily that in a given case of uræmia all the symptoms depend solely on the condition of the blood, for this may have induced other events which themselves become highly influential.

A priori one would hardly think that hemiplegia would be likely to result from toxæmia whether of renal or other origin, as the altered blood would act equally on both sides of the brain. Cases have, however, occurred which make it tolerably certain that such an event is possible. Thus Surmay* alludes to the case of a man who, one winter's night went to sleep near a lime kiln, and was intoxicated by the carbonic acid, so that he awoke completely paralyzed on one side of the body. As the hemiplegia disappeared after two days it seems very unlikely that it depended on any structural lesion. Dr. George Johnson writes at p. 197 of his work on "Diseases of the Kidney," when speaking of cerebral complication: "In other cases, the fatal coma is preceded by a sudden hemiplegic seizure, the attack having all the characters of apoplexy from cerebral hæmorrhage;" and subsequently, at p. 304, he relates a history in which this actually occurred, but at the inspection no hæmorrhage was found to have taken place into any part of the brain, only the left corpus striatum was rather soft. Dr. Watson mentions a case of scarlatinal dropsy in which one sided convulsions, coma, and, at length, hemiplegia occurred at the same time that the face and extremities became anasarcous, vol. ii, p. 765. Temporary paraplegia disappearing mostly as the eruption comes out, is occasionally met with in variola. These, as well as other like instances which might be adduced, are easily explicable if we admit what seems to mean established fact that, even in the same body, and same set of organs, different parts differ very much in the strength of their vitality, in the power they possess of resisting injurious influences, or of maintaining their own nutrition adequately under unfavourable circumstances.

I will now narrate to you the case of which I recently spoke, which possesses several points of interest.

A. W., æt. 39, male, painter and decorator, was admitted September 22nd, 1866. His history was that he had been ill six weeks; he had first obstruction of the bowels for a week, since then his liver had been out of order. The last three days he had been very delirious, his speech had been impaired, he tried to speak but could not make himself understood. His sight also had been impaired from the commencement of his illness; he could not see to read; is pallid; urine light coloured, highly albuminous; specific gravity 1010, deposits very little sediment; no anasarca; much emaciated; pulse 99, weakish; heart's sound distinct; pupils medium; head fully warm; is delirious; often gets out of bed at night; does what he is told now; is tranquil, but has a semi-stuporous aspect. In the right lower back there is good resonance and breathing; in the left it is weaker and semi-bronchial, and there is some dulness.

23rd.—Has been very delirious, frequently getting out of bed; has a puzzled vacant aspect. Quantity of urine seems to be good; pulse 105, of good force; takes food well; perspired well in hot air bath; teeth dirty, but there is no blue line; head hottish; visible pulsation of carotids; systolic murmur is heard at base, along aorta, and at the

* Schmidts Jaharb., 1865, vol. 127, p. 300.

normal site of apex heat, not outside the vertical line of nipple; urine continues loaded with albumen; deposits no microscopic sediment.

26th.—Was very drowsy and insensible, but much quieter last night; to day is very imperfectly conscious.

27th.—No urine passed all day ; is quite comatose ; died in the course of the day.

Post-mortem.—Brain found very pale, dryish, the convolutions flattened on the surface of vertex, a large black recent clot as big as a walnut in the anterior part of the middle (right) lobe at the base just behind the fissure of Sylvius. Structure of brain healthy, except at the seat of hæmorrhage, which reached to the surface and stained the dura mater ; kidneys very granular, mottled on surface ; cortex much wasted; some large cysts in right, weight of each four ounces; heart weighed sixteen ounces; the valves were quite healthy, but the cavities contained large fibrinous clots (possibly ante-mortem), and strands of fibrine were interlaced with the cords of both tricuspid and mitral; aorta healthy; posterior parts of both lungs much congested; liver pale, quite healthy. After witnessing the autopsy I enquired particularly as to the existence of any symptoms which might have resulted from the hæmorrhage, and was positively assured by the sister of the ward that he could get in and out of bed till the 24th; she noticed that he preferred to use his left hand rather than the right, but neither were at all paralysed; he used to move the left leg more than the right, but he did move them both, and that to the last. The absence of any marked paralysis in this case inclines me to think that the hæmorrhage did not occur till near the close of life. The clot was evidently quite recent, and could not have been formed long before death. I conceive that the impaired speech, delirium, and coma, were essentially the results of the poisoned blood, in fact, that they indicate different grades of prostration of nervous power, and that the hæmorrhage ensued when the intra-vascular pressure on the precapillary arteries became excessive. There is no doubt that in cases of this kind the altered blood does not traverse the capillaries with its natural facility, and that this is the chief cause of the cardiac hypertrophy which is so common, and which existed in this case. The conditions, therefore, are evidently favourable to the occurrence of hæmorrhage, the minute arteries, which besides are often diseased in their structure by atheromatous change, become incapable of resisting the strain brought to bear upom them by the enlarged heart *a tergo*, and the slowly recipient capillaries *a fronte*. A case, however, which I have recently observed seems to me to afford some notable evidence that relaxation or weakening of the texture of the minute arteries and capillaries has much to do with the occurrence of anasarca. A gentleman had been gravely ill with Bright's disease for several months, but had no anasarca. He then took, by my advice, several Turkish baths, and while using these with much apparent advantage, his feet and lower legs became markedly anasarcous. The anasarca again disappeared almost entirely when the Turkish baths were given up during the last few days of his life. It seems reasonable to refer the production of the anasarca to the relaxing influence of the heat on his vessels. Dropsical effusion is, however, the more usual event. This was absent here, and I have long made the observation that cerebral symptoms are more prone to occur under such circumstances. Effusion of fluid into serous cavities, and the areolar tissue both diminishes the materies morbi circulating in the blood, and lessens the intra-vascular pressure.

The diagnosis of the third class is to be made by consideration of the following points:—1. *The history of the malady.* If we find that our patient has long overstrained his powers, in any of the various ways which we know to be not improbable, as by debauchery, excessive study, speculation ; or if he have passed through a severe weakening disease, or be prostrated by losses of blood, or any other drain ; if he have undergone a surgical operation on some highly sensitive part, as the urethra, or received a severe mental shock, or bodily concussion, if he have suffered from chorea, or any kind of epileptiform affections, or the like; if epidemic catarrh or cholera be prevalent; in fact, if in any way his or her nervous power have suffered severe strain or injury, we should carefully consider whether existing symptoms of nerve disorder may not depend on mere depression of nerve force without demonstrable attention. 2. The *non-permanence of the malady.* If the symptoms are versatile and inconstant, shift their locality, or disappear and recur in some other form, it strengthens the evidence materially. 3. *The effect of remedies.* If from the first, or after the failure of evacuant treatment, tonic and stimulant means have a decidedly beneficial effect, we shall find in most instances that the disease is of functional nature. Yet I shall add a word here for the especial benefit of those who preach up an exclusive port-wine treatment—that if the depression of nervous power be of inhibitory origin, *i.e.*, dependant on remote irritation, no stimulant will be of any avail until the cause of irritation is removed, whether that be intestinal accumulations, diseased teeth, tapeworm, morbid bile, or any like cause. Of this sufficient proof has been adduced by Graves, Brown Séquard, and others, before me. 4. *Some peculiarity or want of accordance in the symptoms.* Thus, if in a case of facial paralysis we find the orbicularis palpebrarum paralysed we have much reason to consider that the disorder is not of central origin, but is the result of cold, or of a fright, or a rheumatic affection of the trunk of the nerve; experience having shown us that in facial paralysis of cerebral origin, the muscle in question remains more or less exempt. Again, in the latter condition, the electro-muscular contractility is so much more preserved than in the former that it amounts to a diagnostic sign.

In cases of hemiplegia the absence of facial paralysis, and *a fortiori* of palsy of the face and tongue, materially confirms the view which might be formed on other grounds, that the disorder is of mere functional character, the so-called hysterical paralysis.

In a case at present under our observation, the existence of very considerable anæsthesia of the skin and muscles of one hand and arm, while the motor power is almost intact, weighs strongly with me to form the diagnosis that the disorder is not dependant on central disease, as, if it were, it is almost out of possibility that the motor nerves could escape. Complete aphonia may occur from strong mental perturbation, or exhaustion, or obscure causes, but this paralysis of the nervous apparatus of the larynx, occurring as an isolated symptom, has not the significance it would have if attended with hemiplegia, or other symptoms of cerebral disease. In both these instances the disorder is probably peripheral, but, on the view that it was central and dependant on organic lesion, there would be a marked discordance between the loss of function in certain parts, and its integrity in others supplied by the same nerve or nerves.

I now proceed to the history of an interesting and remarkable case of nerve disorder proving fatal without any demonstrable organic lesion.

G. R., æt., 33, coachman ; admitted February 15, 1867. His wife, who came with him, and seemed a reliable person stated that he had been perfectly temperate in his habits. He had not been quite well the last two months, but had not been laid up entirely until the last three days, during which he had taken very little nourishment, but had been thirsty. The last two days he had been very drowsy. His earlier symptoms consisted in tickling cough, with some expectoration ; he seemed to have taken cold, and to have increased it. He never had hæmoptysis, but his mother and a half brother died phthisical. Two months ago he had on the dorsum of the left foot a considerable swelling with some redness, it used to subside during the night, and get worse when he went about during the day; it ceased after a fortnight. He never had anything like gout before. The right foot was much less affected. A fortnight ago both hands were numb with sensation of needles and pins ; one hand was affected one day, and the other on the next ; then the disorder ceased. The last

three days he has been as he is now, very drowsy. Is not conscious at all times. Has suffered with pain in head the last fourteen days; much worse the last five; the pain is referred chiefly to the forehead and right temple; is felt severely when he coughs; his head, he says, feels as if it opened and shut. Bowels regular. Urine said to be very pale—copious. At present he is lying in bed on his right side with his head low, his knees bent; it is not easy to rouse him; he resists when I try to look at his pupils, which appear natural. Pulse 96, regular, very weak and small. Marked anæmia, one quasi-purpuric spot on mucous surface of lips. Has had much cold sweating at night lately—no shivering. When I call on him to put out his tongue he rouses a little, and says "Yes, yes," but will not show me the tongue or open his mouth. Temp. 99°32 F. He does not ask to-day for drink as he did yesterday. The urine is found to be bright and clear, of good colour; spec. grav. 1030; contains a large amount of sugar but no albumen. Brandy, 6 oz. Broth diet. Ferri et quinæ citratis, gr. vii. + spt. æth. chlor. ℥xv. + aq. ℥i. *ter die.*

16th.—Had a pretty good night; was rather restless—not delirious. Is more awake and rational this morning; puts out his tongue readily on being asked, which is dry, but clean. Is still drowsy. Pupils rather large—equal. Pulse much more distinct; is still small and weak. Heart's sounds quite normal. He flinches when I press the right iliac fossa, but not when I try the left. A few indeterminate spots on the abdomen. Is very thirsty. Milk, two pints.

17th.—Pulse 100, distinct; respiration 34; temperature 98·2 F. Urine in twenty-four hours amounts to about 40 oz.; spec. grav. 1037; is highly saccharine. The right arm is quite palsied this morning, both as to motion and sensation; it falls quite inert when I raise and let it go. Sensation exists over the region of the deltoid, but is quite lost in the hand; he feels no pinching. He is drowsy, but quite capable of being roused; speaks intelligently; tells me that the right arm was only paralysed this morning, which the nurse confirms; and also describes how far he has any sensation in the paralysed arm. Complains of pain in his head, which is decidedly hottish. Coffee. Brandy 10 oz. Hair to be cut short.

18th.—Became worse at 11 P.M.; was more unconscious at 6 A.M.; was then quite comatose; soon after was convulsed nearly equally on both sides, and died at 8 A.M.

Post-mortem—Feb. 19.—Body spare; rigor mortis well marked. The membranes of the encephalon all appeared perfectly healthy in every part; the large arteries at the base were empty and free from emboli. The gray convoluted surface was pale, the subarachnoid fluid rather abundant, the puncta vasculose were very few, the whole organ was decidedly in a marked state of anæmia. Every part down to the medulla oblongata was carefully examined, but there was nothing whatever morbid to be discovered. The region of the fourth ventricle was very carefully inspected and divided by numerous sections, but all appeared healthy. The same with the pons. The left lung was excavated by a cavity the size of a small orange at its apex; in the vicinity of this were numerous crude tubercles; the lower lobe was healthy. The right lung contained a few tubercles in its upper part, elsewhere it was healthy. Both, however, were very much congested, especially at their posterior parts. The heart was small, but normal—rather flaccid. The kidneys appeared quite normal, only that their cortex was pale. The liver was darkish on section—otherwise normal. There were numerous miliary tubercles in the mesentery. A portion of the small intestine taken from near the ilio-cœcal valve was healthy, one large peyerian patch was somewhat thinned. A careful microscopic examination was made of portions of both corpora striata of the pons varolii, and of the medulla oblongata, but I found nothing in the least morbid except some atheromatous deposits on the wall of one vessel in one of the corpora striata.

In this case, the tuberculous mischief discovered at the autopsy can only be considered to have promoted the operation of the essential cause of death, by having enfeebled the system and lessened its resisting power. Some peculiar depressing agency must have been at work. To some it may appear that the man being diabetic, the enfeeblement produced by this derangement was sufficient to account for the phenomena. I cannot take this view, for the amount of urine passed was by no means large, and he had not suffered seriously from emaciation. I am much more disposed to regard the diabetes as a co-result with the drowsiness, paralysis, coma, and convulsions, of the action of some enfeebling miasm on the nervous centres. An injury in the region of the fourth ventricle, we know, will cause saccharine urine; it is therefore probable that this nervous district was in some way injuriously affected. The symptoms prove that the cerebral hemispheres, the left basal ganglia, the excitable districts, were paralysed, or disordered in their function. The cause of these symptoms escapes our observation, but it seems to me most probable that whatever it was that affected one centre affected all the others. It is a nearly gratuitous hypothesis that the miasm in operation was the influenzal, but it may not be without interest to remark that malaria, that equally unknown but certainly allied agency, is capable of producing the same events, viz.—saccharine urine, coma, palsy, and convulsions. The non-elevation of temperature excludes the possibility of the disease having been low fever, typhus, or typhoid. I can hardly think that the swelling which affected the dorsum of the feet two months before his admission was of gouty origin; it was more probably of rheumatoid, and as such was allied to the fleeting neuralgia which affected each hand for a single day. Cases of this kind are comparatively rare, but not so much so as they are supposed. I have met with a very similar one after an operation for stricture of the urethra, which I have recorded in my Lumleian Lectures. I have mentioned there, also, the case of a man who had paralysis of all four limbs, to all appearance dependant upon, as it was actually coincident with, epidemic catarrh. Dr. Sibson had a case in this hospital some years ago, which proved fatal, and where no lesion was detected on post-mortem examination. The symptoms during life were those of imperfect and shifting paralysis, affecting motion and sensation, special as well as common. A remarkable case recorded by Dr. Levi may be classed with the above, a summary of which will be found in my Lectures above-mentioned. The fundamental idea which I regard as necessary to the comprehension of these and similar cases is, that nervous centres are liable to suffer in a very analogous way to peripheral nerves. The latter, including the tertiary centres in which they are implanted, are certainly liable to non-organic alterations, conditionating pain, numbness, palsy, hyperæsthesia, spasm; and I believe the very same holds good of the superior intracranial centres, only that their disorders give rise to more diversified and special phenomena. The practical value of this view is that it takes you off from always thinking of congestion and effusion when you have to deal with perplexing instances (and how frequent they are) of disorder of the nervous centres.

Original Communications.

ON THE QUALIFICATIONS AND DUTIES OF AN OFFICER OF HEALTH.

By H. LETHEBY, M.B., M.A., Ph. D., Etc.,

PROFESSOR OF CHEMISTRY IN THE COLLEGE OF THE LONDON HOSPITAL, AND MEDICAL OFFICER OF HEALTH FOR THE CITY OF LONDON.

ALTHOUGH the public have had considerable experience of the important functions of an officer of health, yet they by no means comprehend the real duties of the appointment, or the qualifications necessary for it. Even in this metropolis, where, ever since the passing of the Local Management Act of 1855, such appointments have been numerous,

yet there are not two vestries of the same opinion as regards the importance of the office, or the nature of the business belonging to it; and of the scores of towns which have adopted the Public Health Act, and the Local Self-Government Act, there are but few that have fulfilled the intentions of those Acts by appointing medical officers of health, and fewer still that have given vigour to the office by acknowledging its importance. It may be that our own profession is somewhat to blame in this matter on account of its carelessness in dealing with it, for too often has the appointment been accepted without consideration of the responsibilities attached to it. In many cases the duties have been undertaken as a sort of pastime, requiring no more time or attention than can be easily spared in the intervals of practice, and the office has been accepted as an agreeable honorary appointment.

It is needless to say that the ministry of the office, under these circumstances, is not likely to promote the aims of sanitary science, or to serve the interests of the public, or to fulfil any of the intentions of the appointment.

It was not so in ancient time, for we are told that in Greece it was a very common thing for the public authorities to consult the most learned physicians (the Asclepiadæ) on all matters relating to the public health. Hippocrates was, perhaps, the Officer of Health at Athens, and Democedes at Ægina, Athens, and Samos, successively.* Even in our country, where there was danger of pestilence, or an unusual sickness, the most famous physicians were appealed to in behalf of the common weal, and the learned Kaye, who founded the College at Cambridge, speaks of the importance of the office, and of the responsibilities connected with it. Lord Bacon, too, has left us a record of what he thinks were the duties of the appointment, and the way in which they should be performed.

But no one, perhaps, had so good an opportunity of estimating the services of an Officer of Health, and of judging of his qualifications as Parent-du-Chatelet. "It is generally thought," says he, "in the world that the knowledge of medicines acquired in the schools is all that is necessary to become a useful member of the Council of Hygiene; and that to have a diploma, and some patronage, is sufficient to qualify a man for administering thereto." Medical men, for the most part, share this opinion; and on the strength of some precepts which they have collected from books on Hygiene and Medicine, they think themselves sufficiently instructed to decide on the instant the gravest questions, which can only be resolved by special knowledge.

A man may have exhausted medical literature, he may be an excellent practitioner at the bed-side, a learned physician, a clever and eloquent professor; but all these acquirements in themselves are nearly useless in a council of health, and, if an occasion presents itself to make use of them, there are but few persons who can apply them. To be truly useful in a Council of Hygiene, it is necessary to have an extended knowledge of Natural Philosophy, and of the constitution of the soil on which the city is built, and of the geology of the neighbouring country. It is necessary, above all, to know with exactness the effects which trades may have on the health of those who exercise them. To be acquainted with the more important influence of every species of manufactory on the vegetation, the animals, and the population of cities. This knowledge, so important, of the effects of trades and manufactures is not to be acquired by ordinary study or by reading in the library. It is not to be obtained without a technical knowledge of the arts, and of the many processes which are peculiar to them. It requires practice, and the frequent visiting of manufactories. In this particular, more even than with medicine, books are not a substitute for practical observation, and if there exist works on the subject, they are more likely to mislead than to enlighten. From what has been said, and especially when we regard the multitude of subjects to be treated, it will be evident that it is necessary to introduce into the Council those physicians who have made hygiene, and, above all, public and political hygiene, their especial study; and to join with them chemists, particularly manufacturing chemists; for, what would they do before a furnace, or in a matter of practical art, if their lives had been spent in hospitals, or in the exclusive study of medicine? It is clear they would often be deceived by those adroit and skilful manufacturers who would have an interest in concealing the truth.* These observations were made in respect of the qualifications of a member of the Council of Hygiene, but they apply with greater force to the qualifications of an Officer of Health. In fact, the Board of Health of this country in 1855, acting under the advice of their Medical Officer, issued instructions respecting the duties of an Officer of Health which accord in many respects with those of Parent-du-Chatelet. "The Officer of Health" they say, "is appointed in order that through him the local sanitary authority may be duly informed of such influences as are acting against the healthiness of the population of his district, and of such steps as medical science can advise for their removal; secondly, to execute such special functions as may devolve upon him by the statute under which he is appointed; and, thirdly, to contribute to that general stock of knowledge with regard to the sanitary condition of the people, and to the preventible causes of sickness and mortality which, when collected, methodized, and reported to Parliament by the General Board of Health, may guide the Legislature in the extension and amendment of sanitary law.

"The duties of the Officer of Health will be to the following effect:—

"1. He will make himself familiar with the natural and required features of the place, with the social and previous sanitary state of its population, and with all its existing provisions for health, namely—with the levels, inclinations, soil, wells, and watersprings of the district; with its meteorological peculiarities, with the distribution of its buildings and open spaces, paved or unpaved; of its burial grounds and lay-stalls; with the plan of its drains, sewers, and water supply; with the nature of its manufacturing and other industrial establishments, with the house accommodation of the poorer classes, and their opportunities for bathing and washing; with the arrangements for burial of the dead, and with the regulations in force for lodging-houses and slaughtering-places, for the cleansing of public ways and markets, and for the removal of domestic refuse. And if he be the first officer of health appointed in his district, he will, without unnecessary delay, furnish to the local authority a connected account of these matters, so far as they relate to the public health, making thereon such practical suggestions as he may think applicable.

"2. He will invite communications relating to the sanitary wants of the district from the resident clergy, the medical practitioners, registrars, relieving-officers, and other persons or societies engaged in the visitation of the poor.

"3. He will take the best means in his power to become acquainted from week to week, and in times of severe disease, from day to day, with the deaths and sicknesses in his district; and he will inquire to what extent they have depended on removable causes.

"4. With the assistance of such subordinate officers as the local board may empower him to direct and superintend, he will watch his district, taking care to bring its several parts under examination as often as their sanitary circumstances shall require, and especially observing those places which have previously given occasion of complaint, or been subject to sickness. He will inquire as to the cleanly, wholesome, and weather-proof condition of houses; as to their due ventilation and not over-crowded condition; as to the efficiency of their drainage and water-supply; and as to the absence of dampness and offensive effluvia in and about them. He will examine from time to time the drinking waters of the place, and will observe whether provisions are offered for sale in any damaged or adulterated state, that is hurtful or illegal. He will occasionally visit all burial-places, and see whether they give any ground for

* Rumsey's Essays on State Medicine, p. 297.

* Hygiene Publique par Parent-du-Chatelet, Tome 1, p. 4.

complaint, and he will habitually observe the slaughtering-houses of the district and other industrial establishments, which are liable to emit offensive (especially animal) effluvia.

"5. He will report to the local board weekly, annually, and at such intervening times as may require it :—

"Weekly, on all deaths, (classified according to age, cause, and locality), and, so far as may be practicable, on all important sickness of the district ; on such newly observed unwholesome conditions as the local board can remove ; and on the completion, progress, or neglect of improvement in matters previously reported on.

"Annually, on the sanitary transactions of the year, (especially as to the removal of former evils, or the creation of new establishments for sanitary purposes,) on whatever incidental changes have been wrought in the physical state of the district, and on the sickness, mortality and atmospheric conditions of the period—using for these reports, as far as convenient, tabular forms and other compendious arrangements ; and, in every case where he refers to an existing evil, stating what sanitary rule, measure, or appliance he deems best for its mitigation.

"6. He will attend the local board when required, will be present at some convenient appointed place as often as may be needful for the receiving of complaints, and in whatever is to be done for the abatement of unwholesome conditions, will give all fitting instructions, superintendence, and aid.

"For the proper performance of these duties, special qualifications in science are required. These lie in pathology, including vital statistics, and in chemistry, with natural philosophy :—

"In pathology, because the science implies an exact study of the causes of disease, in their relation to the living body—a study of what they are, and how they act, and why they seem to vary in operation.

"In vital statistics, properly a section of pathology, because by analyzing the compositions of various death-rates, and by learning how the pressure of particular diseases differs under different circumstances of climate, season, dwelling, age, sex, and occupation, definite standards of comparison are gained, without which the Officer of Health could not estimate the healthiness or unhealthiness of the population under his charge.

"In chemistry, accompanied by microscopical observation, because without such aid there can be no accurate judgment as to impurities of air and water, dangerous impregnations of soil, or poisonous admixtures in food ; and because the same science also guides the application of deodorizing and disinfectant agents.

"In natural philosophy, because many nuisances are traced, and many questions as to ventilation and overcrowding, are answered by its laws ; further, because by its aid the Officer of Health studies the atmospheric changes, and learns the climate of his district, important steps in proceeding to speak of its diseases ; and, finally, because natural philosophy, in conjunction with chemistry, renders him competent to report on many manufacturing processes alleged to be hurtful to health, and on the sufficiency of such means as are employed to reduce the evils ascribed to them.

"The branches of knowledge here spoken of are parts of every extended medical education, for curative and preventive medicine are founded on a common basis ; but they are not the parts which have most direct relation to the treatment of disease. The most distinguished practitioner of a neighbourhood may, indeed, happen to be also the person best qualified for a sanitary appointment ; but the reverse must often be the case, for not all members of the medical profession can afford equal leisure to cultivate those distinctive studies ; and it will imply no disparagement of men, actively and skilfully engaged in the treatment of disease, if the special qualifications in question should sometimes be found in other members of their profession rather than in them.

"On the other hand, it is important for Local Boards to know that the best training for the general duties of the medical profession is also the best training for the duties of an Officer of Health ; and, in choosing among candidates who have not previously held sanitary appointments, those who have to elect may properly rest on the evidences of general aptitude for a medical career, especially when testifying to methodical and industrious habits, to competent powers, with some previous discipline in scientific observations, to sober judgment, and to thorough conscientiousness in the investigation and statement of facts.

"The duties of an Officer of Health will not usually be inconsistent with his devoting a portion of his time to certain other professional engagements. But, where possible, it will be well to debar him from the private practice of his profession—firstly, because the claims of such practice would be constantly adverse to those of his public appointment, the duties of which (especially at times of epidemic disease, when his official activity would be most needed), private practice would scarcely fail to interrupt and embarrass ; secondly, because the personal relations of private practice might render it difficult for him to fulfil his frequent functions of complaint ; and, thirdly, because, with a view to the cordial good-will and co-operation of his medical brethren, it is of paramount importance that the Officer of Health should not be their rival in practice, and that his opportunities of admonitory intercourse with sick families, should not even be liable to abuse for the purposes of professional competition.

"Objections of this nature will not generally hold against the Officer of Health being professionally connected with the medical school or hospital of his town. Provided such engagements are not of too engrossing an amount, it will conduce to the efficiency and public estimation of an Officer of Health that he be thus kept conversant with the practical aspects of his profession, and have given some security for keeping pace with its scientific progress.

"It may happen that the extent of duty to be required from the Officer of Health in a particular district would not justify the local board in allotting such a salary to the office as would enable its holder to dispense with the income derivable from private practice. But in cases of this description, the object would be equally fulfilled if the local boards of neighbouring towns or districts would combine in engaging and remunerating a properly-qualified person, on the understanding that he should be precluded from private practice, and should act as Officer of Health for the two or more Boards concurring in the appointment."*

It is hardly possible to speak too emphatically of the necessity for the Medical Officer of Health being entirely independent of the conflicting interests of private practice, for they are ever clashing with public duties. The worst places in the worst districts are often the property of men who are the best patients of the Sanitary Officer, and it is not in human nature to oppose itself to its own interests. Too often, in fact, the owners of unwholesome tenements, or the proprietors of offensive trades, or the dealers in adulterated food, force themselves upon the local boards for no other purpose than to protect their own interests, and to check the applications of sanitary measures to their unwholesome properties. This is the experience of almost every Sanitary Officer in the kingdom ; and while local boards are constituted as they now are, it is dangerous for him to be independent. In fact the conclusions of this question go to show not only that the Health Officer of a district should be independent of private practice, and of the general influence which it has on the free exercise of his duties, but also that he should be independent of the local boards. "What approach is there," says Mr. Rumsey, in his 'Essays on State Medicine,' "to security for the free and conscientious discharge of the highest order of professional duties, where the appointment, and the question of salary, and the right of dismissal, are committed to a body representing every kind of influence which is adverse to sanitary control? To the honour of some of the local boards

* Minute of General Board of Health. Dec. 20, 1855.

of this metropolis, and to that of the city in particular, these privileges have not been abused, but have been exercised freely and faithfully for the good of all. But these very exceptions make the common condition of them more striking, by showing how necessary it is that Health Officers should be independent of local influences. This has long since been decided by the experience of the Continent; for when, in the early part of the present century, Health Officers were created in Prussia and in Austria, they were elected, as they are here, by the municipal authorities; but soon it was found that the public interests clashed with the private affairs of the district, and the power of election was withdrawn. Indeed, the Government saw how improper it was to place officers, whose functions belonged to the general polity of the State, in a condition of dependence upon a local body, whose interests were too often opposed to the duties of his office. They saw, also, that the nature of his qualifications, and the variety of his functions, were beyond the appreciation of a municipal assembly. In France, also, the election of a councillor of public hygiene is not committed to a local vestry, but to the Minister of Agriculture and Commerce. It is only in this way that the services of a highly-qualified officer can be secured, and the means afforded whereby his duties shall be freely performed.

Considerations of a public nature indicate that the health officer of a district might be advantageously employed in other duties than those specified in the acts of Parliament relating to the subject, or in the minutes of Council. He might, for example, most usefully superintend the registration of the births and deaths of a district, by revising the returns of the local registrars. It would, perhaps, be too much to expect of him to verify every death, and certify the cause thereof, as is done by the *Médecins des Morts* in Paris, and the *Todten beschauer* in Austria, but it would not be too much to require him to examine and revise the mortality returns of his district, and so bring them into nosological order, and statistical arrangement. This, perhaps, would be the means of securing what is now so sadly wanted, a faithful record of the actual causes of death. It would put a stop to the absurd entries which disgrace the national register, and make it all but useless for statistical purposes. No longer should we have such ridiculous returns as sudden death, death from wounds, ulcers, lungs, spasm, joints, abscess, tumour, cough, exhaustion, want of vitality, and the many other unmeaning terms which make up the 10,000 ill defined deaths upon the mortuary registers for every year.*

But besides the advantage of correct registration, the constant supervision of the mortality returns of a district by the Officer of Health would inform him fully and immediately of the existence of preventible disease, and of the outbreak of an epidemic. It would thus enable him principally to apply his remedies, and to advise the local authorities of the measures necessary for sanitary improvement.

(To be continued).

CEREBRO-SPINAL FEVER: ITS TREATMENT BY MEANS OF ICE.

By JOHN CHAPMAN, M.D., M.R.C.P.,
PHYSICIAN TO THE FARRINGDON DISPENSARY.

(Continued from page 99.)

THE third and last group of symptoms of cerebro-spinal fever I enumerated as follows,—"Symptoms of hyperæmia, proceeding, it may be, to inflammation of the ganglia of the sympathetic: chills, shiverings, flushes, and other morbid variations in the temperature of the skin, constipation, dilated pupils."

I have elsewhere stated my conviction, which is supported by certain well established facts, as well as by analogical reasoning, "that in the same way as gland-cells are shown to become attractive to the blood, supplied to them by virtue of nervous influence exerted directly upon them, so the cells forming all other structures of the organism are endowed with their peculiar elective affinities for those elements of the blood, needed for their nutrition and especial purposes, by the agency of centrifugal, or positive motor nerves operating directly on the cellular elements of each structure.

"Assuming this proposition fairly proveable, we should be able to say of the bodily structures generally that, in addition to the sensory nerve supplied to each, there are two motors: one exercising on the cellular constituents of the structure a stimulant influence, causing it to attract blood to itself; the other by stimulating the muscular coat of the arteries, causing them to contract, and thus to regulate, restrain, or even to arrest the blood-supply. If this doctrine be at once true and applicable to the whole body, it appears that healthy life, like the perfect movements of the planets, consists in a balance or relative adjustment of two opposing forces; and that, while considerable perturbations of those forces are not inconsistent with health, any excessive subordination of the one to the other induces, or, indeed, constitutes disease, in the structure in which it occurs. Inflammation ending in textural death by excessive and therefore exhausting activity of the reproductive force is induced when the positive motor nerves have become exclusively active; anæmia, also ending in death by mere cessation of the vital processes, is induced when the negative motor nerves are exclusively active."*

If the view here expressed be correct, it is easy to perceive that the phenomena of different diseases will, by their distinctive features, denote, in great measure, the different degrees in which the cerebro-spinal and the sympathetic nervous systems are morbidly affected relatively to each other. If, so far as the nervous system is concerned, the morbid influence is chiefly exerted upon the sympathetic, the skin will become cold, the blood-vessels generally will be contracted, the vital processes will be restrained and lessened, and the strength of the whole organism will be impaired: in short, what is called collapse, more or less pronounced, will be induced. If, on the other hand, the cerebro-spinal axis is principally affected, the symptoms of fever, with more or less abnormal activity of the sweat and mucous glands, and of the voluntary muscles, will constitute the salient features of the disease. How it comes to pass that the mysterious morbid influence fixes more especially on one great division of the nervous system, at one period, and, on the other, at another, we are as yet quite unable to tell, and can but study the resulting phenomena, and follow their indications. In cerebro-spinal fever the symptoms of disorder of the two divisions vary greatly in different cases, and denote great varieties in the relative intensity with which each of those divisions is morbidly affected. In one case there is diarrhœa, in another constipation; in one there are chills, shiverings, and it may be a perceptibly cold as well as moist skin; in another, there are flushes, hot dry skin, and fever. There are also, of course, great differences in the condition of the vascular system, at different periods of the disease, and in different parts of the body, in the same patient. The morbidly excessive flow of blood to the brain is likely to be followed, if life should persist, by a corresponding ebb, as in fact is often observed, and hence, while at one time the pupils are contracted, at another they are dilated, and the peculiar character of the mental disorder associated with these different states, accurately corresponds to them. Of course it is necessary carefully to study these different states, and to distinguish them from each other, in order that the treatment may be judiciously modified accordingly. As a general rule, chills, shivering, and perceptible cold-

* At the third anniversary meeting of the National Social Science Association at Bradford, Dr. Farr stated, that in one quarter of a year nearly 22,000 deaths were returned without any authorized statement of the cause; and that only 83 per cent. of all the deaths in England were certified by the medical attendants.—Transactions of Social Science Association, vol. iii., p. 616.

* "Diarrhœa and Cholera: their Nature, Origin, and Treatment, through the agency of the Nervous System." By John Chapman, M.D., M.R.C.P. Second Edition. Pp. 13-14.

ness of the skin, with dilated pupil, indicate hyperæmia of the vaso-motor nerve centres, and the desirableness of acting upon them by the sedative influence of ice.

When there is observable in the surface circulation a distinct ebb and flow—coldness and pallor alternating with heat and flushing—it may be fairly inferred that a like disturbance of the orderly circulation of the blood in the brain is occurring at the same time. This may be advantageously treated by the *prolonged* application of a moderate degree of cold—the use of the spinal ice-bag, with one or two layers of flannel between it and the back.

I cannot insist too strongly on the imperative necessity of watching with the utmost care every symptom denoting the condition of the cerebral circulation: if, under the influence of ice, carefully applied to the head in the manner already indicated, inflammation, or excessive hyperæmia of the brain has subsided, and the depressing force of the cold be still continued, mental disorder may still manifest itself, and, without due discrimination, may be interpreted as evidence of persistence of that vascular condition which the application of ice to the head was intended to subdue; whereas, as already intimated, mental incoherence, low muttering delirium, and even a considerable amount of active aberration, as well as drowsiness and coma, are consistent with, and often symptomatic of, marked cerebral anæmia. Now if, in such cases, owing to error in diagnosis, the application of ice to the head be unhappily continued, the malady will of course be increased, and the death of the patient is likely to be hastened. The medical attendant may aid himself greatly when seeking to determine the actual condition of the cerebral circulation by noting carefully the temperature of the forehead, and even that of the face: if they are cold, or cooler than normal, and if the pupils are fairly dilated, I should be disposed to cease the application of cold to the head, whatever might be the simultaneous symptoms of mental disorder, and should restrict it to the spine, until there were no longer any symptoms indicating the necessity for its use.

I can do no more than mention here the astonishingly beneficial effects of ice applied along the spine in certain cases of insanity—especially if the malady has not already been of long duration. Applied by myself, I have frequently seen it effect an actual transformation of the mind with a rapidity and completeness equally wonderful; I know of several other cases in which a like result has followed its use; and am enabled to state, on the best authority, that its beneficent power in this respect has been witnessed in one of the hospitals in Dublin. I confidently anticipate, therefore, that in cases of cerebro-spinal fever, when the inflammatory stage has subsided, and is succeeded by so-called *functional* disorder of the brain, resulting in insanity, the sheet-anchor of the physician who has to contend with it will be found to be the spinal ice-bag judiciously applied to the appropriate part of the spine. Constipation also, generally indicates a like condition, which, as I apprehend, induces a spasmodic state of the enteric arteries, and thus, lessening the supply of blood to the muscular coat of the intestines, impairs their functional power. It may, however, be due either to congestion or extreme anæmia of those centres whence proceed the motor nerves of the intestinal muscles and mucous glands. In either case these two groups of nerves would be more or less paralysed, the result being, of course, a corresponding diminution, on the one hand, of the vermicular propulsion of the intestinal contents, and, on the other, of the quantity of mucus poured into the canal and facilitating their passage. But it is extremely unlikely that constipation in cases of cerebro-spinal fever will ever originate in nervous anæmia; and it appears to me, therefore, that this symptom, like all the others now reviewed, will be best treated by means of ice applied along the lumbar and lower dorsal vertebræ.

Having now described the method I recommend of treating cerebro-spinal fever chiefly by means of local applications of cold, I will conclude these suggestions with a few words on two or three other resources, which, in certain circumstances, it may be expedient to employ.

If I were called upon to treat the disease in question, and had no ice at command, I should be disposed to rely most hopefully on the process of wet-packing so extensively and, I believe, advantageously used by the hydropaths in the treatment of many kinds of disease. This plan is said to be at once soothing, sedative, and "antiphlogistic"; it produces profuse sweating, and can scarcely fail to contribute greatly towards equalizing the circulation of the blood throughout the body. Indeed, so highly do I rate the remedial value of this process, that in certain cases I should be disposed to combine it with the application of ice as already described, and this could be very easily done. A spinal ice-bag could be applied within the wet-sheet, just as the patient is about to be packed in the surrounding blankets, and, of course, the fact that he is thus packed, would in no respect impede, but would rather facilitate the due application of cold to the head. In the Number of this Journal published on the 3rd of last month, Mr. T. B. Ryan reports a case of "Purpuric Fever" which he treated by means of wet-packing, along with various drugs: the child recovered, and he observes,—"Certainly I would be inclined to adopt a similar treatment if I met with another such case, or a case of cholera."

Drugs, so far as experience of their value in the treatment of cerebro-spinal fever has been reported, seem to be of no avail, and I confess that I should despair of being able to suggest any likely to subdue this formidable malady; still the same principles which would guide me, in the absence of knowledge of its remote cause, to treat its symptoms by aiming to remove their proximate cause, also indicate that bromide of potassium—a sedative of the nervous system, at once the most powerful and practicable of all medicines—is not unlikely to exert a beneficial influence during the period while inflammation of that system manifests itself. Beyond the use of this salt and of simple salines, aperient or not, and with or without ammonia, according to the exigencies of each case, I should scarcely venture to avail myself of drugs in order to combat cerebro-spinal fever; and certainly I should not think of using opium. But if, after the inflammatory energy has been subdued, or has expended itself, the patient should lie exhausted, apathetic, indifferent to surrounding objects, drowsy, or incoherent, with the temperature of the forehead below that of the normal standard, I should hope to do good by administering one or other of the following drugs—bromide of ammonium, sesqui-carbonate of ammonia, quinine, arsenic. If I gave quinine or arsenic I should do so *in very small doses*, and should watch carefully the results.

A common sequela of fevers, rarely noted, however, except in cases of intermittent fever, but one of the most difficult to counteract, is what may, perhaps, be aptly designated, *unstable equilibrium of the circulation of the blood in the nervous centres*. This sequela, in its maximum degree, originates ague afresh in patients who are far removed, both in time and distance, from the primary cause of the disease; lesser grades of it induce flushings and shiverings, a liability to chill from the slightest variations of temperature of the air-currents to which the patient may be exposed, and undue afflux and reflux in the cerebral blood-vessels, resulting in more or less disturbance of the cerebral functions. In these cases empirical observations have fairly established that the best treatment yet known consists in the careful and prolonged administration of *small doses* of arsenic, and elaborate study of the physiological action of this substance leads, *à priori*, to the conclusion that its use is conducive to the equalization of the circulation. Hence, I infer that in the latter stages of many cases of cerebro-spinal fever, arsenic will be found an extremely valuable tonic.

In concluding this series of papers on the treatment, and incidentally on the pathology, of cerebro-spinal fever, I venture to suggest that our knowledge of the essential nature of cholera may be enlarged and deepened by a due consideration of the analogy discoverable between these two

diseases, which have many symptoms in common, viz.—Abnormally copious and pale urine, chilliness, nausea, vomiting, diarrhœa, sweating, cramps, convulsions, headache, deafness, dizziness, drowsiness, faintness, prostration, sense of great internal heat, great thirst, coldness of the surface of the body, blueness of nails and fingers, petechiæ. The likeness might probably be extended further than I have here traced it, but at all events each of these symptoms may be observed as phenomena of both cholera and cerebro-spinal fever. Of course they are not all observable in every individual case of each disease, but if a number of cases of each be studied collectively, they will assuredly be found. Now, the characteristic structural lesion discoverable on post-mortem examination of cases of cerebro-spinal fever is the result of inflammation, congestion, or extreme hyperæmia of the cerebro-spinal axis; and this constant fact inevitably suggests the question—are not the phenomena named above, as well as the other symptoms of the disease, products and expressions of that disorder of the nervous system, physical evidence of which constantly presents itself in the brain and spinal cord? It seems to me that this question admits of but one answer: the phenomena and the underlying structural lesion evidently stand towards each other in a causal relation. But if they do so, then it is reasonable to infer that, inasmuch as those phenomena are also phenomena of cholera, the essence of this disease, like that of cerebro-spinal fever, is, in fact, disorder of the nervous system. Accordingly, when treating of the pathology of cholera, in the work abovementioned, I stated that "all the phenomena of cholera are due to simultaneous hyperæmia of the spinal cord and of the sympathetic nervous system;" and I think it will be found that I have completely proved the proposition.

While pointing out the striking analogy between these dreadfully destructive diseases, I recognise, of course, that they nevertheless differ widely from each other. A careful comparison of all the symptoms of the two would, I believe, be very instructive, and would result in the establishment of the conviction that the differences between them are due to the difference in the relative intensity with which the subtle and mysterious morbific influence causing them operates on each of the two great divisions of the nervous system.

PAPERS ON DERMATOLOGY.—No. VII.

IMPETIGO.

By T. W. BELCHER, M.A., M.Ch., and M.D. Dub., B.M. and M.A. Oxon.

FELLOW AND CENSOR OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS; PHYSICIAN TO THE DUBLIN DISPENSARY FOR DISEASES OF THE SKIN; &C.

(Continued from 6th Feb., 1867.)

In continuation of some papers on Dermatology, I may perhaps be allowed to recapitulate those already published in this Journal. The following are their respective titles and dates of publication :—

No. I. Sycosis—4th April, 1866.
No. II. Eczema—18th April, 1866.
No. III. Herpes—13th June, 1866.
No. IV. Porrigo—5th December, 1866.
No. V. Prurigo—19th December, 1866.
No. VI. Psoriasis—6th February, 1867.

As several of these have been quoted in various medical journals, and summarised in late volumes of "Braithwaite's Retrospect of Medicine," and [Ranking's] "Abstract of the Medical Sciences," I may, perhaps, be allowed to continue them by making some practical remarks in this paper on IMPETIGO.

Case 1.—S. M., a healthy-looking girl, aged 10, the child of a labouring man who resides at Ringsend, was admitted to the Dispensary for Diseases of the Skin on the 26th of April, 1867, with that variety of the above-named disease, known as "Impetigo Capitis," for a full account of which I must refer the reader to my edition of Neligan on the Skin, p. 192.

In the present case the patient had the disease for some time before her first visit; and when I saw her on the 26th of April the affection was that which is described on p. 193 of the work just quoted, as that form "which is characterised by the eruption occurring in groups of pustules." The local heat and itching were very severe; several of the pustules were torn by the irrepressible scratching which was in vain sought to be controlled. The forehead was not in any way affected, neither was the occiput. The affection was fairly and properly a disease of the scalp; there were not any pediculi to be seen; and the hair was unaltered. Her mother stated that the child had this disease every spring for five years past; but that it usually disappeared before winter.

Treatment.—I desired her to give the child two drams of castor oil, to cut the hair close, and paint the scalp all over with Hebra's Tincture, which I have described in several of my previous papers, and on p. 114 of my edition of Neligan.

She was also directed to take alterative powders of rhubarb and mercury, with chalk; to apply a little of Hebra's Tincture daily for three days; on the third night to poultice the scalp, to remove the mass which had been caused by the disease, hair and medicine all sticking together; and on the fourth morning to wash off all with soft soap, and bring her to me when the scalp was clear.

This she did as ordered, and with great and immediate benefit. The tincture, slightly diluted with water, was directed to be applied and removed as before; the hair still to be cut close, and one dram of cod-liver oil to be given to her thrice daily.

In a short time the scalp was quite clean, the hair well-grown; and the child, to all appearance, strong and healthy. I directed occasional washing of the scalp with soft soap, and continuation of the internal use of cod-liver oil. I have often seen her since, and she is quite well.

Case 2.—P. M., brother of the preceding, æt. five, and a strong and particularly intelligent looking child, was brought to the Dispensary for Diseases of the Skin, on the 7th of May, affected much in the same way as his sister. In his case, however, the disease was apparent on the uppermost third of the forehead; small tumours formed at the nape of the neck; and some of the lymphatic glands behind the sterno-mastoid muscle had become enlarged, and tender. They did not, however, suppurate, nor did the disease extend downwards on the face.

Treatment.—Tincture of iodine made with methylated spirit, as described in my previous papers, and on page 114 of my edition of Neligan; washing the parts daily with soft soap, and taking a dram of cod-liver oil twice daily. The hair to be kept closely cut. Soon afterwards I directed the use of Hebra's tincture, considerably diluted, in the manner detailed in case 1; itching was relieved by stuping with infusion of bran; alterative powders of rhubarb and mercury, with chalk, were also given, as in the former case, and on Monday he took two powders of compound jalap. The child got rapidly better, but having met with an accident, he was kept from the dispensary for a while, and the disease returned again. It was, however, treated as before, and with like success, save that the diluted Hebra's tincture was not so long continued as in the former case, inunction of cod-liver oil having been substituted for it with good effect. The child is now well and strong; and in this, as in the former case, the hair grew with unusual rapidity. I could give details of other cases, but the preceding will suffice to illustrate the disease on which I will now make a few practical remarks.

IMPETIGO, derived, according to Pliny, *ab impetu, impetu agens;* is the *Dartre crustacée, Lépre humide* of the French; *Zittermal, der kleienaussatz* of the Germans; and *crusted tetter* in our own language. According to Neligan, and other standard writers, it is a *pustular* affection, as distinguished from Eczema, which is vesicular. Erasmus, Wilson, Hardy, of Paris, and Hebra, of Vienna, all first-

class authorities, believe it to be an eczematous affection. In point of fact, any one engaged in the routine of cutaneous practice will find no small difficulty in adhering closely to either of these opinions, particularly when a case, as it often does, presents features peculiar to both affections, as described in books. In eczema impetiginodes, as seen among the poorer classes in this city, it is very difficult to discern, at times, between one and the other.

Varieties.—Neligan described three varieties. *Impetigo figurata*, when the disease appears in patches of a circular or ovoid shape; *impetigo sparsa*, when the pustules are developed individually, and appear scattered over the cutaneous surface; and *impetigo capitis*, which, Dr. Neligan remarked, "is the only pustular disease which appears exclusively on the scalp."

Contagion.—Dr. Neligan was of opinion that impetigo is not contagious; and I have seen many cases, which, so far as they went, fully justified this opinion. On the other hand, Dr. Tilbury Fox, in the *British Medical Journal* for May and June, 1864, has fully described a form of this affection which was epidemic among the patients at the Farringdon General Dispensary, and which he believed to be contagious. Now, this very day (2nd Aug., 1867), I have under my care three cases (a brother and two sisters) in which there is strong evidence in favour of contagion, and little on the other side. In the two detailed above, it must be said that they were also brother and sister, and there is some presumption in favour of contagion so far as they are concerned—balanced, however, by the facts that both were fed on poor oatmeal diet; both lived in a fishing neighbourhood; and that none of their *other* brothers and sisters living with them have contracted impetigo.

The question is a practical one, and medical men are often asked—"Should children so affected sleep or go to school with healthy children?" To this, the safe and prudent answer is—*No.*

Causes.—Impetigo most frequently occurs in infants and children; it is frequently connected with dentition, and with the scrofulous diathesis. Irritants applied to the surface, such as washing in very hot water, using hard hair-brushes and fine tooth-combs, stimulating soaps, solar and igneous heat—commonly get the credit of determining its origin.

Diagnosis.—It is *pustular*, and when fully developed in typical cases, has crusts of a semi-transparent, soft, greenish-yellow, honey-like appearance. From eczema impetiginodes it is, as I have already said, with difficulty distinguished at times. Yet, where the diagnosis can be made, the peculiar ichorous exudation and epidermic desquamation of eczema will suffice. From ecthyma, which has large or *phlyzacious* pustules, it is distinguished by its small or *psydracious* pustular eruption. In scabies, the pustules, where such occur, are large and conoidal; besides,—the peculiar symptoms which make "itch" the Anglican synonym for scabies, and the acarus scabiei, which is mostly present in this latter affection, will distinguish it from impetigo.

From *Sycosis* it is distinguished by the facts that, in that affection the disease affects the locality of the beard, is not truly pustular; the crusts are hard and dry, and of a brown colour; and, most important of all, microscopic examination discloses the presence of a vegetable parasite.

Prognosis.—Favourable. It is rebellious in adults and in old persons; and in young persons is liable to return in the summer and autumn months. Its obstinancy is said to be in proportion to its previous duration, but in all the cases which I have seen, my experience has not led me to confirm this opinion.

Treatment.—The constitutional treatment should obviously be different in the young and plethoric; in the old and debilitated; and in the debilitated and strumous child. The green iodide of mercury may be advantageously used in chronic cases, also the arseniates of soda, and of ammonia. The gums of infants at the breast should be examined, as they occasionally require to be lanced; and alkaline treatment at this age is most serviceable. The *local* treatment is, however, the most important in this affection; and in the cases above detailed I have sketched the general idea which may be developed in particular cases according to age and condition. For the irritation and tingling commonly attendant on the acute stages—no remedy equals chloroform; and after many trials of hydrocyanic acid I have almost entirely abandoned it in favour of the former. Alkaline applications are also very useful, and particularly so when combined with chloroform. All kinds of irritating food should be avoided, and, so far as possible, milk and farinaceous diet should be adopted.

CONTRIBUTIONS TO THE COMPARATIVE ANATOMY AND PHYSIOLOGY OF THE GALL BLADDER.

By ALEXANDER MACALISTER, L.R.C.S., L.K.Q.C.P.;
DEMONSTRATOR OF ANATOMY TO THE ROYAL COLLEGE OF SURGEONS; ASSISTANT-SURGEON TO THE ADELAIDE HOSPITAL, AND ONE OF THE HONORARY SECRETARIES OF THE ROYAL GEOLOGICAL SOCIETY OF IRELAND.

THE numerous variations in the conditions and development of the gall-bladder, in the different orders of vertebrata, would lead us to expect that this organ would be, in man, the subject of many mutations, simulating its states in other and lower animals; while its position and relation to such an important and frequently diseased organ as the liver, render it liable to various forms of morbid change or injury. As in many animals possessing livers, we find no trace of this cavity, it seems to hold the position of an accessory or non-essential appendage to the hepatic system, and on tracing it through the different ranges of vertebrate forms, it seems, at first sight, to be capricious in its development or absence. As, however, it may be taken as an axiom in anatomy, that nothing is developed in nature for which there is not an adequate use in some form or other, it becomes an important inquiry what is the direct object fulfilled by this sac, and what are the conditions in which its presence is requisite?

In our search after the determination of these questions, we will examine—

1. Its normal condition as found in the animal kingdom.
2. Its development and abnormal morphological states in man.
3. The physiological bearings of its different varieties.

1. In the order Bimana, it is present and constant, and as, to some extent, elucidatory of its general structure in the other parts of the animal kingdom, we will glance at a few facts regarding its normal position and composition in man; in him it is placed, as in most other mammals, anteriorly between the quadrate and right hepatic lobes, it is pyriform in shape, with its base forwards and to the right, usually, and in the undistended state of the stomach, touching the abdominal pariet for an extent of from a quarter to half a square inch, corresponding to the external border of the right rectus abdominis muscle in a line with the tip of the cartilage of the tenth rib.[1] Its neck looks backward, upwards, and to the left, the centre of the fundus being about five-eighths of an inch farther from the mesial line than the axis of the neck, the amount of this lateralization, however, has a close relation to the size of the liver. It is usually capable of holding from six to twelve drachms,[2] averaging about ten, after death, however, when no obstruction occurs, it seldom contains more than from one to two teaspoonfuls of bile.

It is wide at the fundus, then slightly constricted about two-thirds towards the neck, and from thence tapering towards the narrowest part or neck proper, where it joins the cystic duct. It is divided by anatomists artificially into a fundus, body, and neck. The latter is slightly convoluted in a manner which has often been described im-

1 Cruveilhier refers to a case of gallstones in which, so close did the fundus of the sac come to the abdominal wall, that a perceptible sound of their rubbing could be elicited by pressure.

2 The same author alludes to cases on record in which 6-10 pounds of bile were found in the sac.—Anatomie Descriptive, Tome ii., p. 578.

perfectly. When the sac is moderately distended it, first, will be usually found to be curved with its concavity downwards, then turning a little to the left, then, being concave upwards, it turns into the commencement of the cystic duct; these convolutions are best seen when the peritoneum has been carefully dissected off.

In length the sac is usually from three and a quarter to four and five-eighths inches in length, and from two to five inches and three-eighths in circumference at its fundus. At its neck it averages from five to seven lines in girth; from the fundus to the first constriction is usually two and a half to two and three-quarter inches, and from this point to the neck measures from seven-eighths of an inch to two inches. These measurements are deduced from the dissection of many subjects. During the past few winter sessions I have carefully examined this sac in seventy instances, and the results given above are taken from these examinations.

Of its entire area, when moderately distended, nearly one-half is directly in contact with the liver, more than one-twelfth touches the anterior abdominal wall, one-sixth is in contact with the pylorus, superior transverse portion of the duodenum, and lesser omentum, and the remainder rests near or upon the right extremity of the transverse colon. These relations, however, are liable to hourly changes. Distension of the colon displaces the duodenum, and pushes forward the abdominal wall. Gastric fulness suffices, after death at least, to approximate more closely the pylorus and gall-bladder, and the respiratory or other contraction of the abdominal wall can produce many degrees of relational varieties.

The coats of this sac are properly five—serous, cellular, fibro-muscular, submucous, and mucous. The first of these invests from three-fourths to four-fifths of the sac, it covers the entire fundus which may project to the extent of an inch and an eighth, or even more, beyond the anterior edge of the liver, or may not extend even to the level of the thin margin of the gland. Most commonly the space uncovered with this serous investment, in which the sac directly lies in contact with the liver, is two inches and a half long, and from three-quarters to an inch and an eighth wide. I have found twice, in about a hundred and fifty subjects, the existence of a distinct mesocyst, or freefold of peritoneum, consisting of two layers of serous membrane in opposition, and containing lymphatics, uniting the detached and pendulous gall-bladder to the under surface of the vesical fissure of the liver, and continuous posteriorly with the lesser omentum. A proportionally larger portion of this cavity is invested with serous membrane in the flaccid than in the distended condition, and of the circumference of the sac, a larger part is covered proportionally at the extremity of the body, near the fundus, than at the neck. Very rarely—once in two hundred and sixty subjects—I have seen the hepatic substance deficient completely over the fundus and body of the gall-bladder, and a part of this cavity covered with the peritoneal investment of the convex surface of the liver. More commonly this sac does not extend to the free edge of the liver, but its fundus has a downward tendency, and a fold of serous membrane, or partial mesocyst, intervenes between the prominent extremity and the under surface of the organ. The serous covering is much more deficient in the fœtus than in the adult.

Beneath this exists the second, or cellular coat, which unites the former to the subjacent fibrous layer. This is loose and indistinct beneath the peritoneum, but very strong and laminated where it comes in contact with the capsule of Glisson, with which it is inseparably connected. It is composed of a soft areolar tissue, frequently containing fat globules of a large size, more especially towards the cervix. In some cases of obesity, I have seen this lamina very much thickened, even to the extent of a quarter of an inch. (This condition, however, is not a necessary concomitant of fatty degeneration of the liver).

Beneath this layer can be easily demonstrated a third very strong complex lamina of a fibrous nature, forming a complete envelope, thickest at the centre, and becoming thinner to the fundus; composed of bright, shining, white fibres, which run mainly in a circular or rather oblique direction, intersecting and uniting with some longitudinal fibres, which lie on a place superficial to the main series of circular fibres. The latter are stronger at the first constriction, where they sometimes form a slightly marked belt. Each of these fibres, when examined microscopically, is found to consist of dense fibro-areolar tissue, containing very distinct fusiform muscular fibre cells, which are in length, according to Kölliker, from 0·03‴ to 0·04‴. This histologist describes these as placed both longitudinally and transversely, and says nothing of the relative proportion of the two sets, but in the observations which I have made upon this point, I have not been able to detect more than one-fourth of the fibre cells and areolar bands in the former direction. He likewise mentions that these involuntary muscle cells possess indistinct nuclei, but these in all cases escaped my notice. These cells are narrowly tapered at each extremity, and are more numerous at the neck than near the fundus.

The actual muscularity of this sac has been denied by many authors, but it is not only capable of distinct proof by the microscopic investigation of its constituent textures, but by direct experiment. Haller[1] demonstrated its contractile power, and Engelbert[2] records that he has seen the fibres directly contract when irritated. Folia,[3] in his paper on the peristaltic motion of the intestines describes the contraction of this sac upon the irritation of its walls by nitric acid, and both this author and Engelbert record the same result as following the galvanic stimulus. Distinct muscularity was first demonstrated by Amussat,[4] but denied by Boyer, Blandin, Cruveilhier,[5] and Portal. Kölliker, Meyer, and Huschke[6] have, however, set the matter at rest, and my own observations have satisfied me of their accuracy. Some anatomists have described three separate muscular strata, longitudinal circular, and oblique, but even in the instances of a hypertrophied muscular coat, I have not been able to demonstrate more than the two very obscurely separate sets of fibres already noticed, both constituting but a single lamina. Meyer[7] has traced two sets of fibres ascending from the intestine towards the fundus of the sac, the superficial stratum being longitudinal, and the deeper oblique. These are especially seen in the vicinity of the neck, but I have not found the proper muscular tunic of the gall-bladder to be continuous with these, which, although demonstrable on the duct, I have seldom found extending beyond the cervical extremity of the sac.[8]

The fourth or cellulo-vascular sub-mucous lamina is thin and contains the chief blood-vessels, lymphatics, and nerves of the organ. The superior and inferior branches of the cystic artery, derived from the right hepatic, ramify in an arborescent manner, and freely anastomose in the substance of this coat. Each artery is accompanied by two lateral veins destitute of valves, which, commencing in the mucous coat, pierce into the sub-mucous, and flow backwards, coalescing with neighbouring trunks, and finally terminating in the vaginal branches of the right division of the vena portæ. The lymphatics are very numerous, and form frequently anastomosing loops over the entire sac, especially near its neck; passing backwards they form usually five large trunks, which, by their frequent communications, surround the neck of the sac, and accompanying the ductus communis choledochus, pass into a distinct and tolerably constant lymphatic ganglion, which is situated above the head of the pancreas, behind the right end of the superior transverse portion of the duodenum, and to the

1 Haller—Opera Minora. Tom i., p. 380.
2 Engelbert—De Irritabilitate Vesiculæ Felleæ. Groningen, 1806.
3 Folia—De Motu Peristaltico Intest, 1750. Zimmermann de Irritabilitate, p. 46.
4 Amussat—Archives Generales de Medecine, 1827. Tome 13, p. 286.
5 Cruveilhier believes it to be dartoid in structum.
6 Encyclopædie Anatomique. Tome 8, p. 132.
7 Meyer—Froriep's Notizen, 1838. No. 104, p. 242.
8 Drake was among the first to demonstrate the muscular coat as consisting of longitudinal and transverse fibres. He described a Sphincter, which, however, does not exist. Anthropologia Nova 1727. Vol. i., p. 105. Blancard described two sets of fibres in 1695.

right of the before-mentioned bile duct. The nerves of the gall-bladder, which, in comparison with those of the rest of the liver, are proportionally numerous, are derived from the right branches of the hepatic sympathetic plexus, and they usually form a smaller vesical plexus about the left side of the cervix of the sac.

The fifth, or lining mucous membrane, has been aptly compared in appearance to the reticulum of a ruminant, or to the lung of a serpent, as it is marked out into polygonal depressions or alveolations, somewhat resembling the foveoli of the lining membrane of the vesiculæ seminales, but more regular. This membrane is covered by a lamina of cylindrical epithelium,[1] after death thoroughly stained by the bile pigment, of a brownish or green colour. Cloquet, Cruveilhier, and Boyer, describe the mucous membrane as being white or greyish white during life, and state that the staining is purely a post-mortem appearance, and accordingly on opening the gall-bladder of some animals, a cat or a monkey for instance, immediately after death, the epithelial coat appeared to me destitute of any bile stain. The outer coats of the sac are not at all stained until a short time after death, nor till then does the transudation colour the neighbouring peritoneum, colon, and duodenum, in the manner so universally met with in the dissecting-room.

The reticular arrangement of the basement layer is due to the presence of bands of dense fibrous non-muscular connective tissue in the substance of the basement membrane, and these cross and interlace regularly with each other, thus causing the polygonal, circular, and square forces on the interior surface. Wilson,[2] in speaking of this arrangement says, "the internal surface is raised into innumerable small ridges and folds by the ramifications of the cystic artery and its capillaries." Now, although these vessels, when fully injected, do project on the mucous aspect, yet it only requires a careful examination and dissection of an uninjected cyst, to show that the foveoli may exist totally independent of all vascularity. In an injected sac, however, it will be noticed that the arteries dip from the submucous into the mucous coat mainly in the line of these ridges, and hence the mucous membrane is more tightly tied to the basement layer in the line of these idges, and this probably accounts for the observation made by Hassall, that the mucous membrane can be raised by forcible inflation, from the sub-mucous beneath in the interspaces of these ridges.[3]

These rugæ are larger, and more prominent at the first constriction, but become finer and smoother toward the neck. The fundus is marked by foveæ nearly as large as those in the centre, but separated by very faint ridges, and hence they are usually described as being finer than those in the centre. In each of these ridges is enclosed a close capillary plexus of minute blood-vessels, closely resembling, in arrangement, those on the villi of the jejunum. In some of these ridges a few very small oval glandular follicles are present, especially on those situated in the centre of the sac. These, I think, have not before been noticed. A few other genuine mucous crypts are to be seen at the bottom of the alveoli, but they are much more scattered and fewer than some authors have described. These are simple mucous follicles, and appear to be lined with glandular epithelium. Besides these simple crypts, Professor Luschka, of Tubingen,[4] has described a third set of glands: racemose in nature, and said to be grape-shaped, each composed of a distinct basement wall embedded in a filamentous series of bands of connective tissue, but according to his description, not possessing an epithelial lining. These are filled with granular particles, and a thick alkaline mucous; from six to fifteen of these are mentioned as existing, but I have counted six in a small piece of mucous membrane a little more than half an inch square. Hassall (loc. cit.) has described a second series of four or five pits at the base of the primary foveæ, and a third group of still finer crypts forming the bottoms of the second set, the latter only discernible by microscopic aid, but many of these, I think, may be considered as but superficial irregularities on the mucous surface, and not proper secreting follicles, this arrangement of alveoli within alveoli I have found more distinctly in the bladder of a large pointer dog than in the human sac.

The cervix in man exhibits a slight sacculation, variable in amount, and comparatively obscure until the serous and cellular membranes are dissected off; then it becomes more apparent. When laid open we find there an appearance which has been the subject of much exaggeration in description and figuring. The mucous lining, whose alveoli have been gradually becoming finer, and whose surface has been gradually growing smoother towards the neck, exhibits in the commencement of the duct certain nearly transverse folds projecting from half a line to two lines into the centre of the duct, and placed at an obtuse angle with the central axis of the neck of the sac, which here describes a sigmoid curvature that has been compared by Cruveilhier to an italic letter *S*. The folds are usually from three to nine in number, but I have seen as many as sixteen, or even in one instance twenty. They are sometimes supplemented by a few smaller plicæ above them. The upper or cystic valves are longer than those nearer the duct, and they are somewhat crescentic in outline. They are more prominent when the duct is distended, and although described by some anatomists as situated nearly at the centre of each dilatation or turn of the sigma, yet in reality they seem to have very little, if any, relation to the curvature of the tube. They extend generally from one-half to two-thirds round the tube, and when thus disposed they are usually nearly equal upon the two sides. I have seen them disposed in two lateral series, with their free edges directed towards the sac, and their attached borders alternating to the right and left. In some other cases I have seen them arranged in a single series, all directed the same way, and although generally ending towards the cystic duct with some degree of abruptness, I have, but rarely, seen them gradually shaded off, and finally lost in fine reticulations on the mucous surface of the tube. Few structures in the body exhibit so many individual variations.[1]

(To be continued.)

1 Virchow describes the epithelial cells of the gall-bladder as similar to those of the small intestines, and has found them filled with fat, which he supposes they have absorbed from the bile.

2 Cyclopædia of Anatomy and Physiology, Art. Liver., vol. iii., p. 169.

3 Hassall.—Microscopic Anatomy of the Human Body, vol. i., p. 415.

4 Luschka. Die Drusen der Gallenblase des Menschen.—Henle und Pfeuffer's Zeitschrift, 3 Reihe, vol. iv.

1 As an instance how far belief can stimulate observers to the perception of imaginary structures, we may instance the hepato-cystic ducts, so long supposed to exist in man. Many old books contain descriptions, and even plates, of these. For example, Riverius, liber. 2, cap. x., p. 183; Paris, 1545. Valverdus, lib. 3, cap. viii., p. 186, and fig. xii.; Venice, 1589. Also, Realde Columbus, De re Anatomica, lib. xi., p. 427; Blancard, Anatomica Reformata, tab. xliii., fig. 3. Archangel Piccolhomini seems, however, to have surmised the proper use of the duct, as occasional at least. Anat. Præelect., lectio. xx., p. 129; Romæ, 1586.

Hospital Report.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

ANEURISM OF THE RIGHT SUBCLAVIAN ARTERY, TREATED BY DIRECT PRESSURE ON THE ARTERIA INNOMINATA.

Under the care of Mr. PORTER,

SENIOR SURGEON TO THE HOSPITAL.

In the number of the Medical Press and Circular for July the 3d, we reported this case of subclavian aneurism, and mentioned that Mr. Porter had placed an acupressure needle under the first stage of the patient's axillary artery. This treatment, for a time, promised to be most satisfactory, the tumour reduced in size, and became more firm. The needle was removed in fifty-three hours without the slightest appearance of hæmorrhage, but the pulsation gradually returned, and became as strong as before the operation.

The wound healed perfectly, and the man was up and walking about in three weeks.

As the disease was increasing rapidly, Mr. Porter determined to attempt the cure by placing direct pressure on the innominate artery.

July 31.—Mr. Porter laid bare the vessel after a tedious and careful dissection, which occupied nearly forty minutes. The operation he selected was almost similar to that performed by Mott. Instead of using the acupressure needle and wire, as on the former occasion, he employed a most ingenious instrument invented by Doctor L'Estrange, which somewhat resembles a double aneurism needle without eyes. It is furnished with a moveable handle. One blade is first carried under the vessel, and the second is then passed down on the artery, and is made to compress it like the manner in which the jaws of a lithotrite are closed, with the exception of the blades of this instrument being perfectly smooth and rounded. The blades are approximated by means of a screw, and when sufficiently brought together the handle is removed, leaving the needle in the wound. The patient bore the operation well, and all pulsation in the tumour was arrested by the instrument. He did not suffer the slightest inconvenience from shutting off the current of blood from that side of his head. A bag of ice was then applied to the tumour.

August 1.—He had passed a good night; felt no pain unless when he swallowed. His breathing was quite normal. Pulse 95; complained of slight thirst. The tumour more solid, but a faint pulsation had returned.

2nd.—Slept well. The wound looking healthy. He still complained of pain in swallowing, but at no other time. At half-past one o'clock P.M., Mr. Porter tightened the instrument, which again arrested pulsation. The aneurism is decidedly harder. Half-past nine o'clock P.M., Mr. Porter removed the needle; no blood followed, but pulsation returned strongly in the aneurism.

3rd.—He passed a very good night. The wound is healing fast. All pain in swallowing gone. The tumour harder, but still pulsating. A small bladder containing ice and shot applied.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 7, 1867.

THE COLLEGE OF PHYSICIANS OF LONDON AND ITS FELLOWSHIP.

WE have witnessed of late, in quick succession, the coming and going of several of the "powers that be;" and, if "coming events cast their shadows before," we may build upon the speedy arrival, at the Royal College of Physicians, of another and the greatest potentate of all—*King Progress.*

With some, we opine, he may not be at first a welcome guest; but, if to his wise and liberal voice they condescend to lend, though an unwilling ear, they may at length confess it tells of pleasant ways—such as would lead the College on to win "honour, love, obedience, troops of friends," and speedily to stifle all that bitterness of feeling which its well-known unfairness to so many of its members has begotten; an unfairness felt with increasing pain by all who respect the College, as it can admit of no manner of justification.

While some half-dozen candidates, or even less, presented themselves annually for examination, there might have been a show of reason on the part of the Council for the limited admission of Licentiates annually to the Fellowship. Of late, however, such a plea has been totally inadmissible. The vast influx of members during the year of grace demanded that the College should be far less niggardly in the number of members annually submitted for election (for they have, on the average, scarcely exceeded the number admitted prior to the year 1859).

And if some amount of patronage must be visible in the nomination list of members, it should not, most assuredly, be used to the prejudice of those of longer standing, and, it might so chance, of greater claims. This is the one sore point with many who, had they otherwise remained for life unelected, would never have had the indelicacy to utter a single murmur.

No member could possibly seek the honour of the Fellowship, if he thought for one instant that his admission to it would not be agreeable to the Fellows at large; but many at least might covet the opportunity of the appeal, and are naturally dissatisfied in proportion as they find such opportunity year by year dwindling away. To permit any member (save for unusual reasons) to be placed in such a position, is unworthy of the Council.

Recently, by opening its portals still wider, and by creating a triple grade of rank, it would appear as though the College sought the appellation of a truly *National Institute.* But, with a *façade* of *Liberalism,* it would like to retain within, incongruous forms of exclusiveness and secrecy to harmonise with its traditional policy. It is these elements of that policy which caused such heartburnings in the olden time, and these the elements which would sever both allegiance and esteem in that to come. There is no tribunal so dangerous as that with closed doors. The scales of *Justice* ought to be openly seen in fair and steady equipoise. We would fain believe such policy to be now short-lived. It is, as has been justly said, an anachronism—one strongly repugnant to the sentiment of the Profession. To that sentiment the College ought unhesitatingly to defer. In the matter of the Fellowship, the Profession must henceforth constitute the ultimate *Court of Appeal.* Its verdict, also, must be received as final. Indeed for

our own part, could we believe that the Profession generally deemed us *worthy* of an honour, its actual acquisition would become a matter of very subordinate importance.

THE LICENCE OF THE COLLEGE OF PHYSICIANS (LONDON.)

This question, to which we devoted our last week's leader, continues to excite much interest. We stated the real points in dispute as fairly as possible. The fact that our opinion has excited diverse statements, is sufficient proof of our impartiality. We do not see the utility of mixing up other subjects with this. Such a course only leads to mystification. Whether the College of Surgeons will or will not unite with the College of Physicians, ought not to make any part of a discussion on education. The truth is, that in the ranks of the College of Physicians, no class is at this moment satisfied. The greatest efforts are being made to enlarge the body of Licentiates. To succeed in this, some one's interests must go to the wall. The Fellows can take care of themselves. The Members have no vote. They have fulfilled their function of aiding to fill the College coffers. Nothing more is to be squeezed out of them. They consequently present ready victims for the sacrifice, and having no means of communication with each other, or with the other world of Fellows, they are concluded to be without sensation, and any operation may therefore be performed upon them, without giving rise to a charge of cruelty.

NOSOLOGY.

The attempt at a universal system of nomenclature of disease, undertaken by the Royal College of Physicians of London, will shortly be placed in a completed form before the Profession, and will then require full analysis. In the meantime, we may state, from a preliminary inspection of the proof-sheets, that the labours of ten years do not seem likely to be lost. There are many points that are certain to be generally adopted, and when we mention that the medical advisers of the Registrar-Generals of the three kingdoms, have given valuable assistance to the Committee, we have said enough to secure for the forthcoming work the attention to which it is entitled. Hitherto an international classification of disease has been a dream. It is not certain that the Committee will not have taken a step towards its realization.

Notes on Current Topics.

The British Medical Association.—We learn with much satisfaction that the proposition of Dr. Seaton to change the name of the Association to "The Medical Association of Great Britain and Ireland," to which we took exception in a late issue, has been withdrawn. It seemed to us imprudent to raise the questions which must arise out of such a suggestion. If the British Medical Association be ever a representative of Ireland, which the characteristics of the professional systems in the two countries seem to us to forbid, it will be none the less so under its present title.

Honorary Fellowships.—The Council of the Royal College of Surgeons in Ireland met on Thursday last, to consider the propriety of granting the Honorary Fellowship of the College, in connection with the visit of the British Medical Association to Dublin. It was decided that the distinction should be conferred on Professor Syme, of Edinburgh, and Mr. Bowman, of London, should those gentlemen visit Dublin, in consideration of their eminent services in Surgery and Physiology respectively.

Mr. Syme is Surgeon in Ordinary to the Queen in Scotland; a Member of the Medical Council; a Fellow of the Royal College of Surgeons of Edinburgh, of forty-four years standing, as well as an Honorary Fellow of the College of Surgeons of England, and a Fellow of the Royal Society of Edinburgh. He is also Professor of Clinical Surgery in the University.

Mr. Bowman is an Honorary Fellow of the Royal College of Surgeons of England, a Fellow and Medulist of the Royal Society, late Surgeon and Professor of Physiology to King's College Hospital. His contributions to Ophthalmic Surgery are well-known, while his researches, in conjunction with the late Dr. Todd, on Physiological Anatomy, have gained for him well-merited celebrity.

The Forthergillian Gold Medals.—The subjects for these prizes are announced by the Medical Society of London as being "The Diagnosis and Treatment of Non-Malignant Tumours of the Uterus," to be competed for in March 1868, and "The Curability of Cancer," in March 1869. The essays are open to members of the profession in all countries.

Eastbourne New Convalescent Hospital.—A house was opened at Eastbourne two years ago as an hospital for convalescents. This was effected chiefly through the exertions of Miss Brownlow Byron and the Sisters of All Saints' Home, in Cavendish-square. The applications for admission were so numerous that they could not be all entertained, and it was found necessary to provide more adequate accommodation. A sum of £10,000 has been subscribed for this purpose, and a site of five acres of land at Meade has been purchased of the Duke of Devonshire, on which to erect a new building capable of containing 100 patients. On Tuesday week, the foundation stone was laid by Lady Fanny Howard. One wing of the new building is to be devoted to the reception of thirty incurables. It is thought that £12,000 more will be required to complete this hospital. The ceremony attracted a large number of visitors of both sexes, who afterwards partook of luncheon. Speeches were made on the occasion, when £300 were contributed to promote the object.

Compression of the Innominate Artery for Aneurism.—The case of subclavian aneurism under Mr. Porter's care, in which acupressure was applied in the first stage, as reported in our issue of July 3, did not result in a cure, though the tumour became smaller and more firm. On Wednesday last Mr. Porter cut down on the innominata, and after considerable difficulty compressed it with L'Estrange's instrument. Since the removal of the compressor, three days afterwards, the pulsation returned. This is, we believe, the first case in which the occlusion of the innominata was effected by this means in Ireland. The details will be found amongst our Hospital Reports.

THE OPHTHALMOLOGICAL CONGRESS.—This assembly, which was to have been held at Vienna last year, and was stopped by the late war, will open its sessions in Paris on the 12th inst. M. Giraud Tenlon and M. Wecker are the Honorary Secretaries.

NOMENCLATURE OF DISEASE.—The Committee appointed by the College of Physicians of London to form a plan for a new and systematic nomenclature of disease, presented their report to the College on Friday last. The report is in great measure based on the technology adopted by the Registrar-General, and is introduced by a preface from the pen of Sir Thomas Watson. This work has occupied not less than ten years in its completion, it having been entered on in 1857.

THE PUBLIC HEALTH.—The mortality of London during the thirtieth week of the year, was once more below the average. Allowing for the increase of population, the Registrar-General's returns show 106 deaths less than the estimated number. Nevertheless the deaths from diarrhœa continue to increase, a fact, however, that can excite little surprise, considering the period of the year. In the week ending June 22, there were 16 deaths registered from this disease. Since then, the weekly numbers have been 48, 54, 115, 170, and 196 respectively. In the corresponding week of last year, there were 349 deaths registered from diarrhœa in addition to a mortality of 904 from cholera, which was then epidemic in the metropolis. The figures, on the whole, are not discouraging for the season, though that is no reason why vigilance should be relaxed. The interesting information supplied by Professor Frankland, respecting the water supply, appears in a new shape in this week's return. We are told that 100,000 tons of the London water, contained from 24 to 39 tons of extraneous substances. The amount, in a like quantity of the Glasgow water, was only 3 tons. The Kent water taken at Deptford, was the hardest and altogether the most impure of these impure supplies. The figures are very suggestive, and deserve the thoughtful attention of all sanitarians. The annual rate of mortality was, during the week, 23 per 1000 in London, Dublin, and Edinburgh; 22 in Bristol; 21 in Birmingham; 27 in Liverpool; 34 in Manchester; 27 in Salford; 21 in Sheffield; 24 in Leeds; 20 in Hull; 26 in Newcastle-on-Tyne; and 23 in Glasgow. When will Manchester take steps to bring down this frightful figure?

MEDICAL SCANDAL.

GREAT as our admiration may be for the editor who fearlessly calls "a spade a spade," and soars above the opprobrium which always attaches to the naked truth, we are reminded now and then that a journalist has responsibilities to the public for the veracity and morality of what he publishes, in direct proportion to the privileges which publicity confers on him. He who, in his private capacity, ventilates scandals or publishes inaccuracies can inflict but little injustice because the dictum of such a person generally carries with it little respect, and because he cannot scatter his venom beyond his own vicinity. How much then does it behove the person, who under the cover of the almighty "We," repeats his words into thousands of ears, and with a more than human authority, to be cautious how he adopts or countenances statements prejudicial to character and prospects without the best reason to know that his facts *are* facts, and his opinions are good sense. Editors cannot be infallible, but they may be cautious, and it is no part of their *role* to obtrude the criticism where their public interests do not demand an expression of their opinion, even if they confine themselves to strictly accurate facts.

The *Medical Mirror* for June devotes six pages to a semi-editorial article under the title of "Medical Gossip of the Month," which, despite our feeling against editorial squabbles, we do not feel ourselves justified in passing by without comment. The communication takes the form of a colloquy between a mythical *dramatis personæ*, and is written in a style with which we are too well acquainted. As a psychological curiosity, and a mental exercise, it is worthy of perusal, the only intelligible part of it being the personalities which are intended by the author to supply the place of the literary smartness, of which no smack appears.

From Holt's dilator to Catnip tea; from the tailor's strike to Kidd's notion on anæsthetics—the author wanders, appearing to consider, as we do, no one idea worthy of a second paragraph. We do not take up our pen to complain of the style, which is a simple matter between the author who perpetrates it and the editor who accepts it without reading it (or, worse still, after perusal), and the subscribers who are victimised; but we do protest against the most justly-respected of our Profession being at the mercy of such a pen as that of the author. Right and left, with an impartiality which is the only creditable feature of the effusion, English and Irish Surgeons and Physicians are villified in sneers which are not the less hurtful because they are meaningless, and by inuendos which, appearing in a public journal, and ludicrous to those acquainted with the persons aspersed, may still have weight with those who do not know that they are unjust and inaccurate. The following extracts express the general sense of the communication, and carry a severer condemnation than we can utter:—

[SCENE:—CRITO (like the *Lancet*) is for all prescriptions in English, FRORIEP all in Latin, and so C. F. I.: one is astride on the edge of a library table, the others at their best, when REPORTER and HARVARD fall in, and there is a talk, de omnibus. "Latin is the salt that preserves the profession," says FRORIEP; CRITO calmly detests pharmacopeias, orthopædic surgery, Latin; believes cholera not infectious; a serio-comico ethical congress necessary at Dublin; there is a talk of dinners and conversaziones at Apothecaries' Hall, and who lost by the "Oaks." But we must not anticipate.]

C. F. I.—Latin! of course I stick up for it, and so do you. Our school at Guy's you may say is now purely theoretic; *you would not give a fig for what Wilkes says of practice of physic*—there you are right; *no more than what Callander objects at St. Bartholomew's* to acupressure.

REPORTER.—They are both, I admit, simple "dead house" men, *excellent* at *post-mortems, rather than men of ethics or experience*—or——

HARVARD.—America is obliged to you. Q is right; our journals are very high class; time and distance best doctors—*temporis ars medicina fere, &c.* Agassiz quite opposed *to infidel notions* of Huxley, Carpenter, Eoozoon, hippocampus, and all.

HARVARD.—Eh? *conversazione* of the Medical Council! Catch me going there again; a half-dozen mere wooden nutmegs now rule our societies—practice diminishing—quackery going up—Melbourne recognised, but not American M.D.

HARVARD.—I 'spects as how, eh? the Council is paid for by the entire profession. Why not the entire profession represented, not little Hawkins? Bah! crown nominees, delegates-diploma market, solemn gold mace. Bah! Hawkins, &c., al, sounding brass and tinkling symbols.

CRITO.—I mind it weel. Cholera nae infectious. Its as bad

as orthopædic surgery dinners, or this wee bit of sorcery of anodyne mixtures, cloves, chloroform, and candle lighting, the new dodge, *or that Prothero Smith's nonsense.*

REP.—This black death in Dublin. Is only typhus allowed to grow black! Haughton, of course, is all hypothesis. Look at the journals! whoever in the world reads these speeches of the Council.—(REP. skims through the "weeklies," not at all pleased.) *The ranks of the homœopathists, specialists, quacks, are strongly recruited from Irish and American physicians, because Dr. Jacob stops the way.*

We cannot think that the editor of the journal in which this lucubration appears would, except inadvertently, have permitted his pages to be stamped with the well-known imprint of such sneering personality; and now that we have called attention to it, we trust he will no longer open the pages of a hitherto high-class journal as a refuge for journalistic destitution, or an engine for the ventilation of petty jealousies.

Foreign Medical Literature.

CASE OF OSTEOMYELITIS SPONTANEA DIFFUSA.

By P. THILESEN.

TRANSLATED FROM THE NORSK MAGAZIN FOR LÆGEVIDENSKABEN, XXI. BIND, I. HEFTE, CHRISTIANIA 1867, P. 3.

By WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY, AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

(Continued from page 113.)

Dissection—Cavity of the chest.—Integuments over the tumour on the chest very thin, semi-transparent; sound on percussion tympanitic (came on subsequently in consequence of the development of air in the part). After preparation of the skin and connective tissue air was evacuated by puncturing the tumour, upon which it completely collapsed. The tumour consisted of a great abscess cavity beneath the integuments and through the thoracic muscles. This extends from the second rib on both sides downwards to the fourth intercostal space on the right and to the third on the left, transversely over the sternum from the extremities of the ribs on the right to a little outside the ends of the cartilages of the ribs on the left. The body of the sternum forms a great opening in the posterior wall of the cavity, by which it communicates with the mediastinum anticum, the individual pieces of the body no longer hang together, the cartilaginous connection between them reciprocally, and with the cartilages of the ribs, has disappeared; the middle piece lies completely separated in the mediastinum anticum, the superior and inferior are attached to the manubrium sterni and the ensiform process, but are detached from the costal cartilages, and, like the middle portion, are stripped of periosteum on both surfaces. The intercostal muscles are preserved, but the pectoral muscles are in great part destroyed. The ends of the costal cartilages are attenuated and pointed, semi-transparent, greyish. The walls of the cavity are uneven, formed of half separated flakes of gangrenous tissue, and lined with greyish scanty pus. The surrounding muscular structure, with the subcutaneous connective tissue, is pale, œdematous, and emphysematous, especially over the neck, and over the right side of the anterior wall of the thorax. In the mediastinum anticum is an abscess cavity, connected with the external one, of about the same size, but extending a little further to the left beneath the costal cartilage, and not reaching quite so far to the right as on the other side—superiorly it reaches almost to the neck; inferiorly to the middle of the pericardium, all the connective tissue being loose, the fatty tissue destroyed, and the cavity tolerably deep. The fundus is formed of the mediastinal pleura, the lateral surfaces are composed of the edges of the lungs attached to the costal pleura. The margin of the right lung reaches nearly to the ends of the cartilages of the ribs, that of the left not farther than to the extremities of the ribs, and the adhesion is here imperfect, so that pus has sunk down between the lung and the pericardium, and thence down to the base of the cavity of the thorax. The contents of the cavity are the same as those of the external one. The walls are less uneven. The heart and the great vessels are everywhere covered by the mediastinal pleura. In the part of the mediastinum below the cavity is the ordinary fatty tissue. No pus has penetrated down into the mediastinum posticum. The left pleura contains, besides a quantity of thin greyish pus, a large amount of thick fibrinous exudation lining both the pulmonary and costal walls, and the diaphragm. The lung is half adherent, half free, only anteriorly is it completely attached. The pleura is everywhere thickened, uneven, injected, here and there ecchymosed; the lower lobe of the lung is devoid of air, not compressed, but tolerably heavy, infiltrated with turbid serum, and rather congested. The surface of section is smooth, the pulmonary substance is soft; down from the base yellowish grey infiltrated striæ extend up through the pulmonary tissue for a short space without any acute demarcation. The upper lobe contains air, but is not overloaded with it. There is nothing in the pulmonary artery. The right lung is everywhere adherent. The adhesions are œdematous and infiltrated with blood, the pulmonary tissue contains air. In the pericardium is blood-coloured serum in tolerably large quantity, nothing else.

In the abdominal cavity is nothing important. Some small abscesses in the kidneys.

Right Lower Extremity.—The head of the femur is half luxated, hanging only loosely in the acetabulum; the cartilaginous rim has almost disappeared; the round ligament is softened and torn asunder. The cartilage on the head is gone, that on the acetabulum has almost disappeared. In the joint, which is open, is a reddish puriform fluid, the neck is carious, denuded of periosteum, which is wanting also in the upper third of the thigh, on the anterior surface of the bone. The trochanter major is turned backwards, and is loosened from the femur, its surface of insertion on the femur is carious. The trochanter minor, which is turned directly forward, is loosened from the bone (the cartilage is gone), and hangs attached only by a cord of thickened, half ossified periosteum, which, beneath the trochanter minor forms a prominent edge, continues thence obliquely down over the inner surface to the boundary between the superior and middle third, hence proceeds over the anterior surface, and turns at an acute angle obliquely upwards and outwards around the external surface towards the trochanter major. Above this line the denuded smooth bone has begun to be superficially necrosed with commencing demarcation parallel to the ridge of periosteum. Everywhere beneath this edge the periosteum is, on the contrary, considerably thickened (about 2‴) and half ossified down to the knee, and can be torn from the subjacent, normal, smooth cortical substance. It can be cut through with some difficulty, and bony passages are then seen on the surface of section. Upwards, on the posterior surface, the thickness of the periosteum diminishes, and from a short distance beneath the inter-trochanteric line the bone is denuded, and farther up is carious. Around the denuded bone and the thickened periosteum externally, a cavity with thin chocolate-coloured pus is met with from the head of the femur to the inferior epiphysis, superiorly all around, inferiorly chiefly on the outside from the ligamentum intermusculare posticum to the anterior surface. Between the muscles on the anterior surface is seen in one place a hemorrhagic, spotted infiltration, which also extends partly into the muscle. Inferiorly, externally, and posteriorly, just at the transition to the epiphysis, the periosteum is softened to a puriform, fibrinous mass. Hence an infiltration, of the same appearance, passes through the rarified bone into the me-

dulla over the cartilage of the epiphysis (which is itself normal), and continues thence up through the whole femur with alternating dark brownish, red, and greyish yellow discolouration of the medullary substance. The greyish yellow parts can be taken out in the form of oblong plugs, look almost like decolourized thrombi, and lie in smooth walled spaces in the spongy substance. Superiorly, this change reaches, it would appear, as far as the carious basis of the trochanter major. The cortical substance on the anterior periphery of the shaft of the bone is normal; on the posterior, on the contrary, it is spotted red, as if rarified by the intrusion of reddish medullary space. The knee-joint and the epiphyses are normal.

The dissection, therefore, confirmed the diagnosis so far, that we became assured that no aneurism was present; that the collection above and beneath the sternum consisted of pus; and that the primary disease was an affection of the bone, which had given rise to the development of a pyæmic condition. But the dissection showed what, as I have said, had not been previously assumed, that the affection was an *osteomyelitis spontanea diffusa* of the worst kind, especially such as Chassaignac describes it.

The course of the disease was about as follows:—Probably without any connection with the earlier excoriation of the toe and the subsequent inflammation of the same, a commotion of the bone occurred, directly or indirectly, during dancing, in the course of which there arose either slighter, more molecular changes in the medullary tissue, exhibiting themselves only by alterations in the nutrition of the part, or greater and ruder changes, as minor fractures of the fine osseous framework in the interior of the medullary canal, and ruptures of small vessels with consecutive extravasation of blood in the tissue. These—to judge from their cause—certainly not considerable changes, sufficed in this individual, evidently predisposed to disease of this kind, to produce inflammation in the medullary tissue, with its consequences—the formation of granulations in the canal, with rarefaction of the bony tissue, and purulent infiltration of the medulla in the whole length of the diaphysis. The inflammation was soon propagated to the spongy substance, especially superiorly in the neck (ossitis rarificans). It went on to an ulcerative destruction (caries of the neck, the part over the inter-trochanteric line, the surface of insertion of both trochanters). At the same time, there was destruction of the articular cartilage, inflammation and accumulation in the joint, and separation of both trochanters. Inferiorly, and there indeed under a double influence, both by a propagation of the osteomyelitis and by the purulent periostitis attacking the bone, did a *degenerative ostitis* at the same time arise with a result bordering upon carious destruction of the bone. The whole cortical substance anteriorly and on the sides remained sound; posteriorly, on the contrary, the cortical substance was affected. Here, too, a development of fœtal medullary tissue, granulating tissue in the natural cavity of the bone, with rarefaction of the substance, seems to have commenced. Anteriorly, as I have said, the shaft of the bone was uninjured, with the exception of a spot above, where it was denuded of periosteum; and partly on account of this, partly by reason of predisposition thereto arising from the other affections of the bone, did a slight superficial necrosis of the same set in. Along with the osteomyelitis, and of course induced by it, we see a periostitis in the whole length of the thigh, principally of a purulent, but partly, also, of a fibrous, ossifying character. Superiorly over the necrosed part there was probably purulent periostitis, with a collection between the bone and the membrane *(periostitis purulenta dissecans)*, which caused its destruction. Inferiorly, and particularly posteriorly, we see a purulent (interstitial) periostitis through the whole substance of the periosteum, which is everywhere infiltrated with pus. The most central part was especially the seat of a fibrous and ossifying periostitis, with great thickening of the membrane. I may here remark upon the great facility with which the latter was separable from the bone. The deposition of pus from the purulent periostitis of course produced in the surrounding soft parts a violent phlegmon with copious suppuration. The processes in the bone must have run a very rapid course—thus, even at the close of the second week, we find the abscess formed in the mediastinum, and fully-developed pyæmia. Whether the pains and tenderness in the shoulder-joint were also of pyæmic origin, cannot be positively decided, as this joint, unfortunately, was not examined at the post-mortem.

As the case came under treatment at so late a period, nothing certain can be stated as to the chronology of the different groups of symptoms. Judging from the early violent pain in the region of the hip-joint, and the change in the position of the extremity, the articular affection must have occurred unusually early.

(To be continued.)

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR JULY, 1867.

1 Companies.	2 Date and Place of Collection.	3 Total solid impurity in 100,000 parts.	4 Organic Carbon.	5 Nitrogen as Nitrates and Nitrites.	6 Ammonia.	7 Total Combined Nitrogen.	8 Previous Sewage Contamination (Estimated.)	9 Total Hardness.
THAMES.								
Chelsea ...	JULY 1ST. Cab-rank, Horse Guards.	26·54	·212	·204	·006	·209	1105	19·7
W. Middlesex ...	JULY 1ST. Cab-rank, Portland-road.	26·20	·232	·182	·006	·187	885	19·4
Southwark and Vauxhall ...	JULY 1ST. Barclay's Brewery.	26·02	·237	·221	·008	·228	1295	19·7
G. Junction ...	JULY 1ST. Cab-rank, Woodstock-street.	24·86	·189	·319	·006	·324	2255	19·1
Lambeth ...	JULY 1ST. Cab-rank, Westminster-road.	26·24	·241	·276	·006	·281	1825	20·3
OTHER SOURCES.								
New River ...	JULY 1ST. Cab-rank, Tottenham-ct.-road	24·22	·145	·199	·006	·204	1055	19·1
E. London ...	JULY 2ND. Waterworks, Old Ford.	24·68	·206	·125	·006	·130	315	18·3
Kent ...	JULY 1ST. Waterworks, Deptford.	38·52	·133	·374	·002	·376	2775	28·8
Loch Katrine ...	FEBRUARY. Glasgow.	3·28	·256	·031	·002	·041	0	0·3

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, when submitted to the same analytical processes. The numbers in columns 3, 4, 5, 6, 7, 8, and 9, all relate t

100,000 parts of the waters. The table is to be read thus: 100,000 lbs. of Chelsea water collected on 1st July, at the Horse Guards cab-rank contained 26·54 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·212 lb. of carbon. This solid impurity also contained ·204 lb. of nitrogen in the form of nitrates and nitrites, besides ·006 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·209 lb. The above quantity of water supplied by the Chelsea Company had been, after its decent to the earth as rain, contaminated with sewage or manure matter equivalent to 1105 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames or its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been entirely converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 19·7 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The Southwark Company's water was slightly turbid when drawn from the main.

ROYAL COLLEGE OF CHEMISTRY.

London, July 27th, 1867.

ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

TUESDAY, 6TH AUGUST, 1867.

THE proceedings of the Association, held this year in Dublin, commenced with the customary formalities. The retiring President, Dr. Waters, of Chester, having resigned with a few farewell observations, the President-Elect, Dr. Stokes, delivered the following inaugural address:—

MR. PRESIDENT OF THE COUNCIL AND GENTLEMEN,—My first duty on taking the chair, which, during the past year, has been so ably filled by Dr. Waters, is to return thanks for the honour you have conferred on one personally a stranger to most of you, in naming him as your President, on the first visit of the Association to Ireland. Your Society is one altogether peculiar in its organisation, and in which we recognise the union of the three kingdoms for objects that are good and consequently great. And so we are proud of our institution, proud of it as followers, and, therefore, as teachers of science, for every man who practises medicine or surgery in a true spirit, is himself at once a learner and a teacher. Yet it is not on this ground alone that the British Medical Association is to be considered; for, from its very beginning, more than a quarter of a century ago, it has kept other, and in a sense, higher objects in view. It has in good earnest sought to raise the social status of medicine, by the labours of science on the one hand, and the labours of love on the other. And in this object the records and experience of the past show that it has been successful. It has largely added to the scientific reputation of British medicine and surgery, and it has advanced the social concord of that great body of our brothers who are engaged in the Godlike art of healing, which is like mercy, "blessing him that gives and him that takes." We seek to draw closer to one another all men who in good faith and honour work for the sufferer in body or in mind, no matter what may be their respective stations, their degrees, or ranks in society; no matter what may be the class or position of those for whom they labour; for, to the true physician—I use the word in its widest sense—sickness levels all ranks, and we can affirm of our brethren that the friendless and the destitute receive at their hands a sympathy and a care which often surpasses that which station or wealth can command. These works are done, though as yet the world knows but little of them. They are done instinctively, following the precept and example of the founder of our religion, the right hand unknowing of what the left hand doeth. They are done through a special influence, as yet not fully recognised, of the study and the practice of medicine upon the understanding and on the heart. Therefore, to draw closer the various members of the varied ranks of our common profession which, in one sense, is the most united, and in another and a lower sense, has been the most divided, is a great and worthy end. It is to bring the force of the whole to bear on the common weal, and by union to strengthen the hands of the separate workers in the exercise of that power which is animated by charity, guided by knowledge, and which observation rendered fruitful by study, makes every day more and more an instrument of good.

Of the influence of the science of medicine on the understanding, it may be said that that science has it in common with every branch of knowledge which is based on observation and induction, but that it animates the heart is also true; for to do good, even from necessity, moulds all so engaged unwittingly to themselves to be more or less ministers of Christ's work upon earth. It is plain that this result of the exercise of our profession should work in all directions, and that in our relations to one another we should apply the same qualities of mind and feeling, the same self-abnegation, the same enlightened and catholic spirit which is the great result of our work.

In the earlier states of civilisation, man gathered himself into families or tribes, which, from natural causes, became mutually hostile, and therefore ignorant of one another; hence a state of war became their normal condition, and even now, when, by the consolidation of tribes, great empires are founded, our peace, when it does prevail, is an armed peace.

It was to remedy a similar state of things in medicine, which, at least in this country, embraced many tribes whose interests were held to be separate, and whose relations were mutually hostile, that, in founding the Associations, Sir Charles Hastings and the far-seeing men who worked with him, kept in view its operation, not only as a scientific body, but as a means of promoting friendly feelings by the personal interchange of kindly offices, a means of getting rid of prejudices and of neutralising those corporate jealousies so long the bane of our profession. Thus, they not merely hoped, but foresaw, that the time would come when that profession would be bound together as a united body, looking ever upwards, and strong in mutual respect and mutual confidence.

The experience of the working of the Association warrants us in holding that, in a large measure, these anticipations have been fulfilled, and already we can see the proofs of a sounder feeling amongst members of our profession. And this result has a wider application than appears at first sight; for it must largely subserve to the interests of society. This has been excellently put by Sir Dominic Corrigan, in a speech lately delivered at the inauguration of the statue of Sir Henry Marsh in the College of Physicians, on the harmony and the mutual respect which has so long distinguished the profession in Ireland, and on the advantages which thereby accrue to the public at large.

Looking at the great question of the social and scientific advancement of medicine, we find that among the general desiderata there are some dependent conditions more or less extrinsic to the Profession. Many of these have been ably handled by Mr. Rumsey and other writers on State Medicine; but to obtain them will be a work of time, depending first on the education and consequent influence of the profession itself, and next on the progressive enlightenment of society and of government.

In the practice of medicine, as it exists in these countries, two methods exist: one, in which the trade element, which, if not the governing principle, is at least very prominent, and the other the professional. The gradual elimination of the first, and the consequent advance of the second, are great objects for all who seek to raise the status of our call-

ing in a social and scientific point of view. Medicine is not any single science: it is an art depending on all sciences. Indeed, it may be said that there is no branch of human knowledge that does not in its turn subserve to it; and, therefore, were there no other reason, its social status should be at least on the same level with divinity or law. Not so much by the possession of honour or titles here or there distributed, but by the comprehensions of the general education of those who enter it. If we look to the *Medical Register*, we shall find that the number of individuals holding such qualifications as imply a course of education in arts, such as is the rule in the sister-professions, is very small, and this reacts on the scientific character as well as the social rank of medicine.

In most cases a general cultivation of the mind is the best preparation for the pursuit of any special branch of knowledge. It may be held that it is unnecessary to insist on this. I am sorry to say that I hold a different opinion. It is most necessary to insist upon it. It may be said that compulsory education interferes with the liberty of the subject, but does not ignorance enslave and degrade for life?

Among the general desiderata of medicine are others, some extrinsic to it, many of which have been so ably handled by Mr. Rumsey and other writers on State Medicine. But to obtain them is a work of time, depending, first on the education and consequent influence of the profession; and, next, on the progressive enlightenment of society and of government.

Yet there are objects of good which are attainable by ourselves, and of these I may specify two among many. The determination of the laws of epidemics, and the placing our knowledge of therapeutics on something of a scientific basis. It was held by Humboldt, as we read in his *Cosmos*, that the question is one of the most obscure and difficult of inquiries. And here I may recall to your minds the proposition of Graves, that the different governments of the combined world should unite in the establishment of medical observatories in their respective dominions in the various latitudes of the earth, where a careful record of every meteorological and terrestrial phenomenon should be kept with all the accuracy of the latest science in connection with observations of the rise and progress of every epidemic. Thus a combined series of observations would, after a time, lead to knowledge, negative or positive, as the case might be, which would be invaluable.

The second desideratum is to settle the therapeutic science which, at present, is little more than traditional empiricism. Not the less valuable and trustworthy on that account; for in all traditions there is an element of truth. What is wanting, is to have applied to therapeutics the same method of scientific investigation which is used in other enquiries. This all important question has been raised in the Medical Council, which is charged with the care of our national Pharmacopœia, and it was proposed by Dr. Acland that a portion of the funds should be used to defray the expenses of scientific investigations as to the value of medicines. The powers of the Pharmacopœia can reject or admit this or that, and, until the values of these medicines are established by severe investigation, we shall go on in the old way. I refer you to the discussions in the last two sessions of the Council. Dr. Acland's motions were lost, but they had the support of a strong minority. It is hoped that he will persevere. A similar course was taken by Professor Bennett at your last meeting; but the museum must be considered as his well-deserved and noble monument, and a small grant of money was made to him to initiate observations on the value of a single remedy. We all look forward with interest to his report and to the debate which is to follow.

Before I conclude, I may ask your attention for a few minutes to allude to some details in connection with the present meeting. It has appeared to the Council that, looking at the probable amount of work to be got through, it would be wise to adopt the system of lectures; and it has resolved that lectures for Medical Surgery, Midwifery, and Physiology, should be instituted in the nomination of the Presidents and Secretaries of these Sections. It was the desire of the Local Committee that some of these offices should be filled by members from the other side of the water, but in obedience to a wish generously expressed at the meeting of Council in Birmingham, at which I had the honour to attend, these offices have been filled by the profession in Dublin; and we think that the Association will not have cause to regret our election of these distinguished gentlemen.

You will perceive, by referring to the programme issued by the Central Council, that it has sought to remedy a defect admitted by many in our former meetings, namely, the introduction of the current or official business during the time which should be occupied in the scientific labours of our body. It is recommended that we should get through all the necessary and official work on the first day, leaving the remaining days to be devoted to the addresses in medicine and surgery, to the reports on questions for debate, and to the working of the various sections. To ensure success to this project, it is manifestly necessary that members who address the meeting will condense whatever observations they have to make as much as possible.

To the inquiring stranger, Dublin presents many objects of interest, and one of the first of them is this great College, within whose walls we are now assembled, with its noble library, schools, and museums. The Museum of Geology in connection with the School of Engineers will well repay a visit, as well as the School of Physic and its recently erected laboratory, dissecting-rooms, and museum of materia medica. The libraries of the Royal Irish Academy, the Royal Dublin Society, that of Queen's Inns and of Archbishop Marsh, are all worthy of inspection.

I have spoken of our Museum of Geology. The great Anatomical Museum of the Royal College of Surgeons, and the Pathological Museum of the Richmond Hospital, created by the energies of Professor Smith, contain many objects of interest. I may notice two more museums, though not of a medical character, the Industrial Museum in Stephen's Green, and the Museum of Irish Antiquities in the Academy, a collection of national antiquities only inferior to that of Copenhagen, and for the foundation of which Ireland is indebted to her great antiquary, the late Dr. Petrie. The Botanic Gardens of Trinity College, and those of the Dublin Society, should be seen, as well as the Zoological Garden, the grounds of which were once the pleasaunce of the Knights of St. John.

It was long the wish of Sir Charles Hastings and those who laboured with him, that the operation of this body should be extended to Ireland. This wish was expressed at the Edinburgh Meeting in 1856, held under the presidency of the illustrious Alison, and during the first session of the Medical Council Sir Charles Hastings spoke on the subject with some of the Irish representatives on the Council. At this time, however, it was considered that, looking at local circumstances connected with the working of the new Medical Act, the necessarily unsettled state of medical education, it was better to postpone the visit of the Association to Dublin for a few years. In this view Sir Charles Hastings fully concurred; he hoped that the time was not far off when all difficulties would be removed, and the event has justified the anticipation, and now in the name and by the permission of the heads of the University of Dublin, it is my happy privilege to bid you welcome. This University, long the fosterer of its Medical Faculty, and by whose wisdom, as in the old English Universities, the academic rank of Medicine and of Surgery is kept on a footing of equality with that of Divinity and Law, has done its best to honour the Association, and to make its visit memorable in academic record by crowning with its highest honours our President of Council Dr. Sibson, and some of the foremost members of your body; and so we meet in the halls of Usher and of Berkely, of Swift and Burke and Goldsmith, of Curran

and Grattan, of Hamilton, M'Cullagh, Lloyd, Hearne, and of Graves.

The address in medicine will be given by the distinguished representative on the Medical Council of the Queen's University in Ireland. The President of the Royal College of Surgeons will take the chair at the surgical lecture; and the committee of reception contains representatives of all the medical corporations. The visit of the Association has a special significance, as being the first ever paid to Ireland; and we rejoice to see so many representatives of British and Scottish medicine and surgery coming among us—the representatives of so truly an enlightened section of British Society.

The history of Ireland is a singular one. More than a thousand years ago, she was the centre of the Christian civilisation of Western Europe. Once vanquished, though not conquered, by the Northman—torn by internecine war, and exhausted by fruitless contests with England, she at last united with her; and the two countries are now beginning to know one another better, and to excuse or explain or forget what was wrong on either side, and to know and estimate that which is right. According to the use that is made of them, and according to the amount of truth or untruth that may be in them, the traditions of the past may be fruitful in evil or in good. But with the advance of education, of intelligence, and, above all, of intercommunication, old ignorances, old prejudices, old memories of wrong, and forgetfulness of right, will fade away. This visit will hasten the time when the crown of our loved Sovereign will surround and embrace in its golden circle an united and a happy people. That day is coming; and therefore it is clear that this meeting has a national as well as a scientific importance, which recommends it to all loyal and all right-thinking men.

HARVEIAN SOCIETY OF LONDON.

MAY 16, 1867.

Dr. POLLOCK, President, in the Chair.

HISTORICAL SKETCH OF THE NON-MERCURIAL METHODS OF TREATING SYPHILIS.

By BERKELEY HILL, F.R.C.S.,

ASSISTANT-SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

THE object of this paper was to show how all the many non-mercurial modes of treating syphilis had fallen into disuse after their fashion had passed away. At the beginning of the sixteenth century, syphilis was treated by blood-letting, purging, starving, and sweating in hot chambers, with the administration of a host of nostrums. To these, mercurial inunction, already employed in other diseases of the skin, was added a few years later. Guiacum was introduced into Europe in 1508, and in consequence of the disastrous effects of the virulent salivation caused by over-dosing with mercury, it became the popular remedy throughout Europe. To guiacum, sarsaparilla and other varieties of smilax were added in the course of the seventeenth century. Thus the "decoction of the words" was formed, which held its ground even to modern times. Nevertheless, authors of the sixteenth and seventeenth centuries, though urging the decoctions to be employed, advise recourse to mercury when they fail of success. Mercury thus grew more and more into favour, especially in this country, where Sydenham, Abercromby, and other writers of the seventeenth century, declare mercurial treatment to be the only effectual one.

In Egypt, and Northern Africa, the disease was treated by sweating and purging as in Europe, though in Algeria the example of the French, is causing the adoption of mercury for treating this disease.

Opium and nitric acid had each, at the close of the eighteenth century, a short lived reputation, as specifics in syphilis.

Iodide, first suggested by Coindet in 1820, and administered by Carmichael, in 1832, as iodide of potass, has earned a reputation of indisputable value in the treatment of certain forms of syphilis.

The great discovery in the nature of syphilis was reserved for Rose, and those military surgeons who, early in this century, by allowing venereal affections to run their course unchecked by treatment, found that syphilis tends to cure itself. and that mercury could be dispensed with in many cases, Nevertheless, Rose, Thomson, Friche, and others, when publishing their experiments, made the error of not waiting till sufficient time had elapsed after infection for the affections of the bones to develop before they concluded that the non-appearance of disease in the bones depended on the non-administration of mercury in the early stages of syphilis. Further experience convinced the British surgeons that tertiary affections and relapses of the disease occur in patients who have not taken mercury. Rose, especially, soon returned to the use of mercury in the treatment of syphilis—his reasons, according to Mr. Cutter, being "that he could cure them in half the time with mercury that he could without." Thomson also, by 1827, had resumed the use of mercury in syphilis.

Irritation of the skin by blisters, vaccination, inunction of tartar emetic, and the continued innoculation of chancrous pus, have, during the last seventeen years been employed as means of eliminating the poison at the surface of the body. The last only of these means has obtained any general adoption. After extensive trial its use has declined in France, where it was first suggested by Auzias Turenne, in Germany, and lastly in Italy, where Sperino has abandoned it for mercury. In Christiania, syphilisation is still practised by Boeck, whose disciple, Bidenkap, has published tables of the patients submitted to this plan. For comparison 140 of these cases, where three years at least had elapsed between the last record of their health and the date of publication, are taken. In 40 of them the disease lasted over six months; in 24 of these the duration was less than twelve months; in five between three and five years. These results are compared with those obtained by tartar emetic inunction. A similar series of 140 cases give 59 of the disease lasting over six months; 31 being under twelve months; 20 between one and three years; and 8 between three and five years. The difference of duration under the two methods being probably due to the different conditions in which the patients are placed while treatment is being carried on. The innoculated patients being kept continuously in hospital, well fed, and given tonics, &c., if necessary. The "tartarised" patients were often purged, and sweated as well, and were discharged from hospital as soon as a temporary cessation of symptoms appeared—to be readmitted if a fresh eruption took place.

The conclusions the author of the paper drew were, first, that as all the non-mercuric methods of treatment had fallen into disrepute, recovery during their use must be attributed not to their efficacy but to natural circumstances since it has been abundantly shewn that syphilis will often subside of itself without any treatment at all. On the other hand the regular reversion to mercury after any new system of non-mercurial treatment had had its day, is strong proof of the value of the drug in the treatment of the disease.

EXCESSIVE INFANT MORTALITY.

Mr. CURGENVEN, in opening the debate, drew the attention of the Society to the rates of mortality of children under five years of age, with a view of showing that where the rate was in excess, causes were operating that might, to a certain extent, be removed. The death-rate under that age was, for England, 27 per cent.; upper and middle classes 11 to 14; agricultural districts, 20; manufacturing districts (men, in average or excess), 30 to 35; (women in excess), 40 to 56; London, 32; Liverpool, 45·5; Illegitimate, 60 to 90 per cent. In France, in country districts, 18 to 20; nurse children, 60 to 90 per cent. Foundling hospital, on the Continent, 45 to 75; Grey Nun's, Montreal, 80; Infant's Home, London, 68 per cent.

The excess of deaths to which he desired to direct attention was that above 20 per cent., which is the normal rate in agricultural districts.

The principle causes operating in the destruction of infant life, he considered, were, first, overcrowding in the dwellings of the poorer classes, resulting in a want of light, air, and cleanliness, three essentials to the health of an infant. The effects of overcrowding were particularly noticeable in large towns, for without light and fresh air the infant languishes and dies, as does the young plant. Badly ventilated rooms, and ill-drained houses, are fruitful sources of diarrhœa, convulsions, and other diseases. It is officially reported that in the overcrowded districts of Liverpool, during July, August, and September last, 91·6 per cent. of all the deaths from diarrhœa occurred in children under two years of age. Nothing but

stringent legislative and sanitary measures will check overcrowding. It occurs in the agricultural labourer's cottage as in the crowded parts of large towns, and is independent altogether from the question of over-population, so much dwelt upon by certain political economists.

Secondly, ignorance, carelessness, and neglect on the part of mothers and nurses, lead to a vast amount of mortality among infants. Ignorance, with respect to the clothing and ailments of infants; ignorance in the choice of suitable food, in its preparation and administration; carelessness and neglect in the regularity of feeding, in cleanliness, fresh air, and suitable exercise; the absence of mothers at work, the consequent neglect of their children, and the pernicious use of opium; these causes lead to a great amount of mortality from dietic diseases. The neglect of illegitimates, and children entered in burial clubs, swelled their death-rate up to 60 per cent. and above.

Thirdly, the congregation of hand-fed infants in institutions was most fatal, for in spite of the greatest care 4 out of 5 will die. The principle cause of their death was thrush, followed by diarrhœa and atrophy. In one institution in London 60 out of 68 deaths are recorded as occurring from atrophy alone.

The causes enumerated lead to *dietetic* diseases—thrush, diarrhœa, atrophy, debility, and convulsions. He included the latter, because *dietetic* complaints frequently terminated in convulsions, and thus it became the registered cause of death. In 1864, no less than 67,888 deaths, or 63 per cent. of all the deaths under 5 years of age occurred from these diseases.

The preventive measures by which this excessive mortality may be checked, are not to be found in any particular views in respect to diet or medicine, however important these may be as accessories. The evil lies deep in the social and moral condition of the poorer classes. Let the overcrowding be checked, and the children of the poor educated, compulsorily if necessary; then, with less of the present impenetrable ignorance and prejudice, and with more light, air, and cleanliness in their dwellings, medical men and sanitarians will have more chance of observing good results from their teachings; and the poor people themselves will take more interest in the care of their children, and in keeping their homes healthy. Let them, then, be instructed in the laws of health, and in the correct method of rearing their children. Teach them that the child requires food suited to its age, and that the farther they depart from its natural food, the less likely is it to thrive and live; then may we hope to see the death-rate of infants reduced to a lower figure than that at which it stands at present.

Correspondence.

THE COLLEGE OF PHYSICIANS OF LONDON.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your correspondent, "A Fellow," seems highly indignant that *Licentiates* of the College of Physicians of London, are "spreading themselves over the country," and setting themselves up as the professional equals of the Members, and (or, perhaps, more strictly speaking, of his own order), the Fellows of the Colleges. Have not *all* the Licentiates been examined and found fit to practise as Physicians? Were not many mere German and other foreign diplomas *(together with the requisite number of guineas)* deemed sufficient to obtain the Membership without any examination? And is not the Fellowship well known to be, as stated by another correspondent, confined to the "few personal friends of the self-elected Council?"

If "A Fellow" can give no satisfactory answer to these queries, the Licence is *not* equal to the Membership or Fellowship, but evidently the most truly respectable qualification granted by the College.—Yours respectfully,

ANTI-HUMBUG.

A LADY DOCTOR'S SUGGESTION ON PREVENTION OF VENEREAL DISEASE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I noticed E. L's letter on the above subject in your impression of June 26th, and while convinced that the view therein expressed of the effect of a medical examination is a correct one, that it would be a plan fraught with much evil, and that nothing would so greatly tend to the complete degradation of these poor women as this exposé. I am also obliged to admit that the resolution of the Harveian Society's Committee, "that such women should be required to submit themselves to a periodical examination, &c. &c.," was a just and good resolution.

It occurs to me, that if this examination were conducted by medical ladies instead of medical gentlemen, the objection would no longer have force, the end desired by the Committee would be gained, and the poor unfortunates would not feel themselves further degraded.

Moreover, the ladies would be interested in the moral reclamation as well as in the physical well-being of their unhappy patients, so that, instead of the "Society for the Rescue of Young Women" being able to report that about 1000 of these outcasts are yearly reformed, I am persuaded the number would be largely increased.

There are certain ladies who for sometime have been studying medicine, and who are competent to undertake this work, ought it not, therefore, to be entrusted to them.—I remain, sir, yours obediently,

MARIA FIRTH.

SEA-SICKNESS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Observing that Dr. Chapman has offered to supply spinal ice-bags to the Medical men about to cross the Irish Channel, for the purpose of being present at the meeting of the British Medical Association in Dublin, to test the value of his principle for removing sea-sickness, permit me to ask some of our Medical friends to test my plan also. It is simply, when nausea sets in, to take occasional sips of cold ice-water, and recline in a semi-horizontal position immediately after for half-an-hour or so, particularly near the centre of the vessel, if possible, but not too near the engine-room. Lately returning by the night-steamer from Calais to Dover, and being an old voyager and sailor, I had an opportunity of rendering good advice to many of the lady passengers, to enable them to avoid sea-sickness. The passage across was very rough, and the vessel rolled about like a turtle—so much so, that I had all my work to do to steady myself on my sea-legs, for the object of administering relief to the over-fed Exhibition passengers. Now, sir, I obtained from the steward constant glasses of cold—very cold—water, made several ladies partake of it occasionally, and recline on deck as directed. The result was the complete removal of a disposition to sea-sickness, and a disposition to be merry than otherwise—a few encouraging words helping this. This plan of mine, perhaps known to others, I have adopted for years past. Let our Medical friends adopt it, and try it *versus* spine-bags. One condition I would suggest—not to overload the stomach before starting.—Yours truly,

M.D.

P.S.—All the treatment in the world, from my experience, will not remove the peculiar feeling of landsmen—*i.e.*, the motion of the vessel—except an apprenticeship to the sea.

Gleanings.

BARON LIEBIG.—At the national banquet of chemists at Paris, Baron Liebig, whose health was proposed by M. Balard, proposed the memory of Gay-Lussac, and Thénard, and gave some pleasing reminiscences of his early connexion with these great chemists. He said he should never forget the hours spent with Gay-Lussac. When they had finished a good analysis, he (Gay-Lussac), used to say—"Now you must have a dance with me, as I used to dance with M. Thénard when we had found something good;" and then they danced and rejoiced over their recovery. While admiring this simplicity of nature, we are led to ask whether our English chemists are wont to follow Gay-Lussac's example.—*London Review.*

LONDON WATER SUPPLY.—The late Water Commission recommended the companies to supply London with water continuously. This suggestion is of great importance, and we hope to see it carried out. Much of the disease now epidemic in the poorer districts of London would be prevented by a constant water-supply. There is, however, another

reason, which a circumstance referred to in one of the Registrar-General's late reports supports fully, and that is, the prevention of the entrance of sewage into the water-pipes. If the water was always "on," it would be almost impossible, in the event of injury to the pipe, for sewage matter to enter it; but, owing to the pipes being occasionally empty, sewage sometimes finds its way into them. An instance of this occurred quite recently in Portland-street. The water-pipe being damaged, the sewage matter entered it, and was found in the water in the proportion of more than one per cent.—*London Review.*

VITAL STATISTICS OF SCOTLAND.—The Registrar-General has now completed ten years' detailed reports of births, marriages, and deaths in Scotland—a period generally regarded as sufficient for obtaining a fair average; and we have now, therefore, the means of ascertaining the vital statistics of the country more accurately than at any time since Scotland has been a nation. The annual birth-rate in the ten years 1855-64 has averaged 3·447 per cent.; the marriage rate, 0·689 per cent.; the death-rate, 2·135 per cent. The death-rate in England in the same period was 2·216 per cent. The lower mortality in Scotland is due, partly, at all events, to its smaller proportion of large towns. The annual death-rate in Glasgow in the ten years averaged 3·01 per cent. In every quinquennial period of life the rate of mortality is heaviest among males with one exception. Between 10 and 15 the female death-rate in Scotland in the ten years slightly preponderated over that of males. 0·1 per cent. of all the children born were illegitimate. In the same period the registers show only 6·4 per cent. illegitimate in England, but a considerable number of births escape registration in England (nearly 37,000 a year, according to the Census report), and as a majority of these probably belong to the illegitimate class, it may be assumed that the proportion of illegitimate children at birth is nearly the same in both countries. Owing to the Scotch law of legitimization by subsequent marriage of the parents fewer persons in the population are illegitimate in Scotland than in England. The ten years' returns show some progress of education in Scotland. In the five years 1855-59, 88·2 per cent. of the men who married and 76·5 per cent. of the women were able to sign their names in the parish register; in the five years 1860-64, 89·3 per cent. of the men, and 78·1 per cent. of the women. These numbers are much above those of England. Arraying mortal diseases in the order of there fatality in Scotland, we must place first consumption, which in the ten years upon an average destroyed 2·595 per 1000 of the population every year. It looks well that old age comes next, 2·119 per 1000 dying annually from this cause, without marked signs of disease. Then comes bronchitis, taking off its 1·525 per 1000 per annum; typhus or continued fever, 1·018; premature debility, 0·985; scarlatina, 0·920; heart disease, 0·789; pneumonia, 0·730; whooping-cough, 0·725; hydrocephalus, 0·626. These are the ten most usual modes of exit from life in Scotland. Next in order, according to the returns for the last two years of the series, would come diphtheria, which, until 1857, did not appear in the Scottish bills of mortality at all.—*Times.*

CÆSARIAN OPERATION WITH SUCCESSFUL ISSUE.—Dr. Poupart of Ypres, laid the particulars of this case before the Belgian Academy of Medicine. The subject of it, twenty-four years of age, and of small stature, had been delivered two years since of an infant somewhat before its full time with great difficulty, on account of the narrowness of the pelvis. Recommended, in case of another pregnancy occuring, to apply in time to have premature labour brought on, she neglected doing so, and Dr Poupart only saw her after labour had actively set in with a full-timed infant. The forceps had been attempted to be applied in vain, and a portion of the small intestine descended through an aperture in the vagina as low as the vulva. There was also retention of urine, catheterism having been rendered impossible by the pressure of the head against the symphysis pubis. The Cæsarian operation was performed, and a living child removed. The bladder was evacuated, and the placenta presented itself at the mouth of the wound, the uterus immediately contracting. The protruded intestine was returned and covered with the omentum. The woman continued in a state of great prostration for many hours, but then rallied, and plenty of milk was secreted. The wound healed very promptly, the ligatures being all removed by the seventh day. The utero-vaginal rupture also readily healed. Measured by Van Hoevel's pelvimeter, the antero-posterior diameter was found to be but six centimetres, or three centimetres less than the biparietal diameter of the child's head.—*Presse Belge*, July 21.

FELLOWSHIP EXAMINATIONS.—The Council of the Royal College of Surgeons of England has just issued the new regulations respecting the Professional examinations for its Fellowship, from which it appears that in future those candidates undergoing the ordeal will have to submit to a *viva voce* as well as a written examination; that in the first examination junior candidates will not be required, as heretofore, to dissect, but that all candidates, whether seniors or juniors, will be examined *viva voce* on dissections and preparations; and that the second examination will include the practical use of surgical apparatus. The next examination under these new regulations will take place about the middle of November.—*Medical Times and Gazette.*

MR. FITZGIBBON, hospital apprentice, got the Victoria Cross for his conduct at the Taku Forts. Surgeon Ross claims the same honour on these grounds:—On the same occasion he went out under fire to attend a wounded dooly-bearer, and, while doing so, was re-called to attend one of the regiment to which he belonged. He sent, therefore, an hospital apprentice to attend the dooly-bearer. When the storming party advanced, Mr. Ross went with it, and was engaged in binding up Colonel Thomas's wound when the same hospital apprentice, who was close at hand attending to a wounded man, was shot, and was at once aided by Mr. Ross, who set his arm. The hospital apprentice was Mr. Fitzgibbon, and it was for the acts we have mentioned the Victoria Cross was conferred upon him. Mr. Ross, who further went on to the breach and mounted it, is now refused the Victoria Cross, on the ground, we believe, that he did not apply soon enough; but on this statement of facts we do not think he has been treated with fairness.—*Army and Navy Gazette.*

Medical News.

CONFERRING OF KNIGHTHOOD ON MR. HENRY THOMPSON.—We learn with great satisfaction that her Majesty the Queen has been pleased to confer the honour of Knighthood on Mr. Henry Thompson, of University College, London, Surgeon to his Majesty the King of the Belgians, at an audience at which her Majesty received Mr. Thompson, at Osborne, on Saturday last. The announcement of this event will be received with pleasure in the Assembly of the British Medical Association, in Dublin, where Mr. Thompson now is, as the guest of Dr. Fleming.

THE Annual Meeting of the Metropolitan Poor-law Officers' Association, was held at the Free-masons' Tavern. After the reading of the quarterly report by the hon. secretary, resolutions were passed condemning the system of taking lunatic paupers into police courts for certification as to their insanity by police magistrates, before removal to an asylum. A memorial to the Lunacy Commissioners and the Poor-law Board on this question, was also submitted, together with suggestions for establishing more intimate relations between Poor-law Medical Officers and Medical Officers of Health.

THE Registrar of Magherafelt, in the north-eastern part of Ireland, records the death of a man, aged eighty-five years, from congestion of the lungs, who had carried for forty years an immense sarcomatous tumour growing from the side of his neck. The weight of this excrescence was computed by several medical men at from thirty to fifty pounds; it lay pendulous ever the front of the right side of the chest and arm, and at times "he turned it back under his head, and made a pillow of it."

ROYAL COLLEGE OF SURGEONS, LONDON.—The following gentlemen, having undergone the necessary examinations, received their diplomas in dental surgery at a meeting of the Board on the 31st ult.—viz., Benjamin Wright Freeman, Burwood-place, Hyde-park; Samuel Kearsley Thompson, Highgate, Kendal; Henry John Hooper, Tolmer's-square, Hampstead-road; and Henry Moon, M.R.C.S., Camden-road, Camden-town. (N.B.—All earlier-dated pass-lists of this College have already appeared.)

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a meeting of the President and Fellows held on Tuesday the 30th of July, the following gentlemen, members of the British Medical Association, were duly elected Honorary Fellows of the College:—Dr. A. P. Stewart, Dr. Hughes Bennett, Dr. Waters, of Chester; Dr. Falconer, of Bath; Mr. Jacob Lockhart Clarke, Dr. Markham, Dr. Gream, Mr. Spencer Wells, and Prof. Polli, of Milan. The President and Fellows distributed their honours amongst those members of the British Medical Association who had not been included in the necessarily small number on whom Honorary Degrees are to be conferred by the University of Dublin.

GIBRALTAR.—The resident population of Gibraltar, according to the last census, amounted to 15,462, exclusive of the military, the convicts, and aliens on temporary permits. From the Blue-book just out we learn that the number of births was 633, and there were 855 deaths.

THE Viceroy of Egypt has given £150 to the Royal Hospital for Incurables.

THE cattle plague has made its appearance in a district near Philippeville, in Algeria.

A DEATH from chloroform is reported as having occurred in the Beaujon Hospital, in the case of a young man under the care of M. Robert, and in whom it was necessary to perform some operation about the thigh.

LATEST FROM THE MAURITIUS.—A correspondent, who dates his letter June 18th, says:—"The fever is diminishing, the deaths having fallen at Port Louis from the *maximum* 230 to 50 a day; but fears are now felt that the fever may become endemic. It has not decreased on the advent of the cold weather to the extent anticipated. Things have been very bad here, and for two or three months the loss of colonial revenue was about one-half, or £1000 per day.

A SURGEON of some note has presented to the French Society for the Protection of Animals, a memoir in which he argues that the suppression of vivisection will not only be attended with bad consequences to animals, but will lead to serious compromising of the public good; that vivisections are necessary to the successful cultivation of the healing art, and that the public are not fit judges of the question. What will the Society for the Prevention of Cruelty to Animals say to this extraordinary assertion?

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

All Contributions are attentively considered, and unaccepted MSS. are returned on receipt of stamps for postage; but the Editors cannot be responsible for any accidental loss, nor can MSS. or replies be delivered on personal application.

A full and concise report of the proceedings of the British Medical Association in Dublin, with abstracts of the papers read, which are most likely to be of interest to our readers, will be published in our next week's issue. Those gentlemen who wish their papers to appear in the Journal *in extenso*, will please forward same to the Office for approval at their earliest convenience.

We are again compelled to hold over some valuable contributions for want of space; our contributors will kindly extend to us their indulgence. Amongst them are papers on Febris Nigra, Obstetrics, Fever, its Real Nature and Treatment, &c. &c.

W. L.—The injection of the liquor carbonis detergens in a case of gleet is two drachms to eight ounces of water three times a day. The immediate effect is an increase with subsequent cure.

Anodyne.—1. You have mistaken the dose. Nepenthe is uniformly of the same strength as tincture of opium, and is said not to cause headache or constipation. 2. The tremulous iris, which you describe, is a symptom of "disorganisation," and therefore a contra-indication of operation.

Censor.—We should consider ourselves editorially responsible for opinions contained in unsigned letters. We cannot accept facts except under the authentication of your name.

Tourist.—You need no introduction at the Paris hospitals. "The Guide des Etudiants" will give you the hours of attendance of the medical officers. Generally from eleven to one o'clock, and you can walk through the wards with them with perfect freedom.

Dr. Garland, Newry.—The omission of which you complain was inadvertent. We regret that it cannot now be remedied.

X. Y. Z.—There is no agent in Dublin. Those elsewhere are seldom reliable, and the matter can be much more satisfactorily negotiated through the owners themselves. There being much demand for the appointments they are with difficulty secured. Write to various shipping firms specifying your qualifications and testimonials.

POOR-LAW MEDICAL VACANCIES.

Finsbury Dispensary.—Resident Medical Officer; salary, £120.

St. George's and St. James's Dispensary.—Apothecary; salary £100, with residence.

Ardee Union.—Callon Dispensary District; salary £80.

Belmullet Union.—Salary, £100.

Letterkenny Union.—Churchill Dispensary; salary, £100.

Rathdrum Union.—Arklow Dispensary District; salary, £80

Alcester Union.—Inkberrow District; salary, £60 per annum.

Newark Union.—Foston District; salary, £14 per annum.

Ongar Union—Second District; salary, £55 per annum.

MEDICAL APPOINTMENTS.

ENGLISH.

BASAN, HORACE, L.R.C.P.Ed., L.F.P.S.G., L.S.A., has been appointed Resident Medical Officer of St. Marylebone General Dispensary.

COLBORNE, W. H., M.D., has been appointed Medical Officer and Public Vaccinator for the Sutton Benger District of the Chippenham Union, Wilts, vice H. Ryley, L.R.C.P.Ed., resigned.

DILLON, Mr. W. E., has been appointed Assistant-Surgeon to H.M.S. Cumberland.

GRIFFITH. Dr. G. DE GORREQUER, Physician to the Hospital for Women and Children, and Physician-Accoucheur to St. Saviour's Maternity, has been elected Medical Officer to the Civil Service Association, London.

MOSS, Mr. B., has been appointed one of the Medical Officers for the West Ham District of the West Ham Union, Essex.

PARSONS, W. A., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Tamworth District of the Solihull Union, Warwickshire, vice Kimbell, resigned.

ROBINSON, C. A., M.R.C.S., has been appointed House-Surgeon to the Hospital for Women, Soho-square.

SHEPHEARD, P. C., M.R.C.S.E., has been appointed Medical Officer for the 1st South-Eastern District of the Freebridge, Lynn Union.

IRISH.

MULLINS, Dr. E. A., has been appointed second Medical Officer for the Achill Dispensary District of the Newport Union, Co. Mayo.

PARKE, W., L.R.C.P.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Gortin Dispensary District of the Gortin Union, Co. Tyrone. Medical Officer to the Workhouse, and to the Gortin Constabulary, vice Wm. Leatham, L.R.C.S.I., resigned, and appointed to the Coal Island Dispensary District of the Dungannon Union.

PHIPPS, R. B, L.R.C.P.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Robertstown and Kilmeague Dispensary District of the Naas Union, Co. Kildare.

Births, Marriages, and Deaths.

Announcements are inserted without charge, and must in all cases be authenticated with the signature of the sender.

BIRTHS.

JOHNSTON.—On the 11th ult., at Hawkshead, Lancashire, the wife of Dr. A. Johnston, of a son.

JONES.—On the 14th ult., at Upper Gornal, the wife of A. Jones, M.R.C.S.E., of a son.

TURNER.—On the 20th ult., at Woodside, Upper Norwood, the wife of J. S. Turner, M.R.C.S.E., of a daughter.

CARTER.—On the 21st ult., at Clarence-terrace, Leamington, the wife of T. A. Carter, M.D., of a daughter.

TAYLOR.—On the 24th ult., at Freshwater, Isle of Wight, the wife of H. Taylor, M.D., of a daughter.

MADGE.—On the 25th ult., at Fitzroy-square, the wife of H. M. Madge, M.D., of a daughter.

MIDDLETON.—On the 31st ult., at the Royal Hospital, Greenwich, the wife of Dr. James Middleton, R.N., of a daughter.

MARRIAGES.

SLOPER—GWYNNE.—On the 11th ult., at St. Mary's Church, Abergavenny, Charles Edward Sloper, L.R.C.P.Ed., of Poplar House, Tredegar, to Mrs. Elizabeth Gwynne, of Monk-street, Abergavenny.

WILLETT—BURROWS.—On the 23rd ult., at All Souls' Church, St. Marylebone, Alfred Willett, F.R.C.S.E., of Wimpole-street, to Rose Ellen, daughter of Geo. Burrows, M.D.

MORRIS—BOTTELEY.—On the 25th ult., at St. James's, West Bromwich, Pryce Jones Langford Morris, Esq., of Osbournby, Lincolnshire, eldest son of the late Pryce Morris, Esq., of Oswestry, Salop, to Isabella Frances, youngest daughter of the late Thomas Botteley, Esq., of Black-lake House, West Bromwich, Staffordshire.

DEATHS.

CRIDGE.—On the 2nd of May, at Grafton, New South Wales, E. M. Cridge, M.R.C.S.E., aged 35.

BENBOW.—On the 2nd of June, at Fort Beaufort, Cape of Good Hope, John Benbow, M.D., L.R.C.S., F.R.C.S.Ed., Surgeon of the District, and formerly of the Army Medical Staff, aged 46.

COTES.—On the 20th ult., Mall House, Hammersmith, Henry Cotes, F.R.C.S.E., late of the Bombay Medical Service, aged 51.

SHEKLETON.—On the 26th ult., at Upper Leeson-street, Dublin, Dr. Robert Shekleton, Surgeon half-pay 51st Regiment, aged 78.

STEPHENSON.—On the 29th ult., at Manchester, John Stephenson, M.D.

Addresses.

AN ADDRESS IN MEDICINE

DELIVERED BEFORE THE

BRITISH MEDICAL ASSOCIATION,

ON WEDNESDAY, AUGUST 7.

By Sir DOMINIC J. CORRIGAN, Bart., M.D.

MR. PRESIDENT AND GENTLEMEN—The President of this great Association has already welcomed you to Ireland. Let me—feebly, perhaps, but with all my heart—echo that welcome on this the first occasion of our meeting. My next duty is to thank you for the distinction you have conferred upon myself in requesting me to deliver the address of this day—a distinction that would be a high one were it conferred by my own College, high if conferred by the Profession of my own country, but that now comes to me as a triple honour when presented to me by the Profession of the United Kingdom. And among the bonds that unite the three divisions of our kingdom together, there are none stronger than those of our Profession, soaring in its exercise above all sectarian discords. We know no difference of race, or creed, or colour—for every man is our neighbour; and when we remember that the Redeemer, while on earth, chose the healing of the sick as one of the most impressive evidences of His divine mission, we must ever hold in respect the exercise of a Profession that devotes its efforts to the same object. Inscribed on the walls of our old—and I hope soon to see it in our new—College-hall, still stands the motto to remind us of this—

ΠΑΡ ΥΨΙΣΤΟΥ ΕΣΤΙΝ ΙΑΣΙΣ.

Perhaps the greatest, truest, and most convincing tribute that can be paid to the worth of the Profession of Medicine is, that when members of our Profession have spent a long life in its exercise; when on their death-beds; when the past is as a dream, the present a flitting moment, the future an awful eternity, they have thought that the best use they could make of their wealth was to leave it to hospitals and schools of medicine, where the Profession they had so long followed would continue to be taught and to be practised. In our own city we have only to look around us to see examples of this. "The elevation of the social position of the Profession," I have chosen as the subject of my present address. The social position of the Profession, and the estimation with which its members are to be regarded by the well-informed of society with whom they are associated, depend on the good general education and professional skill evinced by them. To some points in forthcoming legislation I shall now take the liberty of asking your attention. I am greatly strengthened in taking this line by the observations of our President yesterday, in his opening address, received by you with acclamation, when, with that emphatic philosophic earnestness peculiarly his own, he declared his conviction that the general education of young men going into our profession should not be inferior to that of the kindred professions—the Church and the Bar. It is now, almost to a day, nine years since the Medical Act received the Royal assent, and I cannot say—and I believe many will unite with me in thinking—that the results have been such as to satisfy us either as to the education or protection of the profession. Has the standard of general education been raised? I fear the answer must be in the negative. For a period varying from one to two hundred years, or more, their respective foundations, the University of Dublin, the King and Queen's College of Physicians in Ireland, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall of Ireland, required a knowledge of Greek as a necessary part of the examination of candidates for their respective degrees or licenses. And I think there is not a man who knows anything of the nature of our studies that will not say Greek should be a component in the education of every member of our profession. Yet one of the first acts of the Medical Council under the Medical Act was to declare that a knowledge of Greek was not necessary, and it was only after a long contest I succeeded, as a compromise, in getting a resolution passed that it should be required after 1869. In the proceedings of the council of this year it has been further resolved that botany be also excluded from the list of subjects for examination. It is idle to say that this only refers to a minimum of education; a minimum thus put forward is a sufficiency, and will be regarded as such by students and licensing bodies. The tendency thus appears to be to bring down education to a lower level, not to raise it to a higher. The preliminary education, moreover, of our students in general education, instead of being revised by any one responsible body, is left almost to chance, for no less than eighteen bodies have the power of examining in arts and science students going to the medical profession, and giving certificates, some in the United Kingdom, some in Tasmania, and some in Canada. I think it must be self-evident to every practical mind that such a system can never be depended on to ensure an adequate preliminary education. The several licensing bodies have no means whatever of knowing how those preliminary examinations have been conducted, nor often even the subject of examination. They may change from year to year. Indeed, it was only after some time it was discovered that some of the bodies whose certificates of preliminary examination were recognised, did not make Latin a necessary part of the examination. It is stated in report of committee in minutes of General Medical Council of June 5, 1867, "that the visitors of examination give in most cases a satisfactory report of the manner in which the examinations in general education are conducted." But if we look at the report from the Navy Board to Council of the examination of candidates for direct commissions, we find such observations as these on the education. Opposite the number of one candidate is this observation—"Utterly failed in preliminary examination." Opposite the number of another—"failed in classical examination, declined to attempt to translate and failed to write a prescription." Nor must these be viewed as isolated instances. Each candidate rejected for ignorance represents a group of others equally ignorant and incompetent who have passed some of our licensing bodies, are now on the Registry as "duly qualified practitioners," and probably in possession of appointments through the country, bringing on themselves and the profession the contempt of all well educated persons with whom they are brought into relation in social life, and practising medicine to the hazard and, probably, the loss of human lives. The course which has been adopted of deputing to other bodies far asunder and irresponsible the examination of young men destined for our profession is a great anomaly. The Horse Guards and Admiralty do not recognise certificates of education from other bodies. They know what they want, and they have their own examinations to test it. The civil service examines for itself, but any examination by almost any one, and anywhere, is to be deemed sufficient for us. There is no entrusting here to peripatetic and irresponsible bodies scattered over the world the examination of young men going to the profession of solicitor. Can we hesitate for a moment in coming to the conclusion that for students entering the study of medicine there should be one uniform and sufficient preliminary examination, and that such examination should be under the control of a central authority in each division of the United Kingdom, defining what is wanted, and what the examination should be. We began with nine; we have now arrived at eighteen, including the reception of certificates from Canada to Tasmania. The list is increasing yearly, and the greater the number necessarily the lower the standard. The Navy Board examines for itself. The Civil Service examines for itself. The several universities examine for themselves. There is no parallel instance that I know of similar to our system of taking certificates from almost every body, and the result is seen in the lamentable results shown forth in the army

and navy returns of rejections, where we find candidates rejected for ignorance of the simplest branches of preliminary education. It appears to me to be worse than useless to proceed still in this way. It is evident that under the present system young men get into our Profession who could not pass an examination for the place of a letter-carrier. What is to be done to remedy this sad state of things? Two courses occur to me—one would be to require that every young man, before he gets his degree, should have passed through a university course in arts. This, I fear, would be found impracticable, however desirable. The other is, that in each division of the United Kingdom there should be a Board of Examiners, and that all young men, except those going through a course of arts or science in a university, should be obliged to have undergone an examination in general education before such Board either before the commencement of professional education or within the first two years of medical study. This second plan would, I believe, be practicable. The principles on which I have ventured to deal with the subject of general education and examination apply similarly to the other great division, that of professional education. The same evils exist. We have in the United Kingdom nineteen licensing bodies conferring no less than thirty separate licenses and fifty-three titles. The result is necessarily a downward tendency in competition. Wherever there is a great number of universities or licensing bodies, the competition must be downwards. It is notorious that students know as well in regard to their diplomas, as buyers do in regard to other articles of purchase, where they will get what they want on the easiest terms. They go there and become the possessors of what they want—diplomas—it matters not good or bad articles, for the legal brand, in the form of a registry, declares under Act of Parliament that all are equal. The sad state of ignorance engendered by this downward competition has obliged the Army and Naval authorities to examine for themselves; for they cannot place reliance on the diplomas of our numerous licensing bodies, and could not, on the faith of diplomas issued by them, entrust to their holders the lives of our soldiers and sailors. It appears to me that if our system be not altered, the civil authorities of the country must ignore all our licensing bodies, and, like the Army and Navy authorities, institute an examination for themselves. I should deeply regret to see this, but to this, I fear, it must come unless we bestir ourselves. The General Medical Council has seen the evils I have pointed out, and has attempted to deal with them in two ways, both, I fear, ineffectual—the one is, by issuing "recommendations," or, as they are sometimes erroneously called, "regulations" as to education and examination; the other by "visitations of examination." I will glance briefly at both. "Recommendations," as they are termed, are useless. No one can be tried or punished for disregarding a "recommendation." A recommendation is merely an expression of approval; it is not an "order" or "regulation." The issuing of "recommendations" being thus a failure, another step has been taken which is called "The Visitation of Examination," both preliminary and professional, undertaken in order to ensure that examinations are sufficiently strict. The visitation of preliminary examinations is simply impossible, as the "preliminary examinations" may be held at uncertain times, and in all parts of the United Kingdom, and through our colonies, from America to Australia; and the visitation is supposed to be an efficient supervision over nineteen licensing bodies in the United Kingdom, thirty different diplomas, and fifty-three titles. Believing that such visitation would be only a screen to conceal defects, and not an exposure of them, I felt myself constrained from the outset not to take any part in them. I think it necessary on the present occasion to observe that visitations of examinations cannot command confidence from the radical defect that the several licensing corporations, through their representatives, report upon one another. Twenty-four members, for that is the number of the General Medical Council, either representing, or intimately connected with nineteen licensing bodies, admit that these nineteen licensing bodies are not what they ought to be—that they stand in need of inspection, and they proceed to carry it out. How? By inspecting one another. A. inspects B.'s establishment, and B. inspects A.'s, and thus round the whole twenty-four letters of the alphabet; and then they report upon one another reciprocally, as a distinguished member of the Council and of this Association has well observed, with a general interchange of courtesies. What would be thought of a report from twenty-four members of the House of Commons inspecting and reporting to themselves on the suspected purity of one another's constituents? For not taking a part in this inspection I have been denounced by a portion of the press, and in another place as an obstructor to the progress of professional improvement. There are two kinds of obstructors—one who obstructs a good measure, and another who obstructs a bad measure. But there is a third kind of "obstructor" to progress worse than either of the other two—he who pretends to be ardent in progress, but has at heart no desire for it. I believe we have among the most vehement supporters of visitations of examinations such obstructives to deal with, seeming to carry on, but secretly taking care that no progress is made, for their object is that we should remain stationary. Visitation of examinations is the sail under the lee. We must not let ourselves be blinded to admit, when a new medical bill is before the House, that the present system can ever be made efficient. In the amended bill that has been put forward by the Council there is one clause that I make no apology for bringing under your urgent attention. It is that the General Medical Council shall have a power to admit, without examination, to the registry, and thus make eligible for all appointments in the United Kingdom the holders of foreign diplomas equally with our own graduates and licentiates, on satisfactory evidence being had before it that those degrees or licences had been granted after a sufficient course of study and examination. The proposed clause will be found in the minutes of the General Medical Council of June 5th of this year. I hope the whole profession will seriously consider this proposed clause, and unite with me in resisting it, not merely for their own sake, but for the public good. It is notorious that both in Germany and in America there are universities that sell their diplomas just as they sell beer or Indian corn to all who can afford to pay for them. I have received other evidence since. A gentleman connected with the medical and literary press of London has placed a document in my hands, in which he certifies that an American agent called on him this present year with diplomas duly signed and sealed by one of the American colleges nine or ten years old; he could have a supply fifteen years old if required. He had a variety in stock, price £20, and would allow a discount off, as it was a matter of business. This gentleman is quite ready at any time to verify the memorandum and to give his name. I have within the last week received letters from two members of the Profession, one of them a president of one of our Branch Associations, in which he encloses to me a communication from an agent in Glasgow, in reply to a commution for the purchase of a foreign diploma; and I am sorry to say an M.D. of one of our universities. The letter is so characteristic that I shall make no apology for reading it at length:—

"Ewing-place, Glasgow, 24th July, 1867.

"DEAR SIR—After having had the pleasure of your note of the 6th instant, I write you in direct course. I stated in terms of my said letter that no university but that of the State of Pennsylvania gave degrees of 'Medical Doctor *in absentia*,' the cost being £32 12s., and in full of all demands and delivered free. I also stated in terms of my said note that the university of Giepen, of Hesse-Darmstadt, gave degrees of M.D. for £22 paid there, and £15 10s. sterling paid here, and also in full of all demands In either case I will cheerfully assist you or your friend in obtaining the object in view. As I

have four new degrees to get at Pennsylvania next week, and other four at Giepen also, please send me £32 12s. for the Pennsylvania degree, or £15 10s. in part of the Giepen degree, and I will send all the requisites to you in course—I am, my dear sir, truly yours, "————, M.D."

To give this epistle due dignity there is inscribed on the envelope "On her Majesty's service." It is scarcely necessary to observe that I have in my possession the documents and the names. It is further to be observed with regard to some of the German universities that the same university gives two kinds of degrees—one on a *viva voce* examination, the other *in absentia*. This is a abuse enough, but there is another ingenious subdivision of the *viva voce* examination. To any one of honest intelligence the phrase *viva voce* examination would convey that the candidate presented himself at the seat of the university, and was examined there by its authorities. Not at all, for in one of the documents in my hands the applicant, residing within this kingdom was referred for the *viva voce* examination—to whom do you suppose?—to one of their own graduates, in the neighbourhood of the applicant; and the applicant was informed that on passing such *viva voce* examination and payment of £32 he was to have the degree. It seems to me most inexplicable inconsistency on the part of the General Medical Council to institute visitations of examination over our own universities and colleges of physicians, and yet to propose to dispense with them in the case of the foreign universities, merely requiring evidence to be had before them as to the course of study and examination required. One of the most extraordinary arguments I ever heard in support of admitting foreign diplomas without examination was the introduction of the principles of free trade into debate. It seems strange to me that the advocate of this extraordinary proposition did not propose what would have been a simpler mode of extending to our Profession the principles of free trade, viz.,—by abolishing all restrictions whatever, all degrees and licences, all education and examination, until, at last, as Mr. Gladstone, in his celebrated free trade speech at Paris, said of custom-houses, all universities and colleges would be only remembered as things of the past. As to procuring evidence before recognition that such and such foreign universities had abandoned their evil ways, and instituted sufficient courses of study and examination, there would never be any difficulty in procuring such evidence. We all know that testimonials can be had as plentiful as blackberries for anything, from a South Sea bubble to Solomons' spectacles. Even if we had the most satisfactory assurances that there would not be an abuse this year, we could have no sufficient guarantee that it would not occur next year. Let foreign diplomas be once put on our register under sanction of law as proposed, and they could never be removed, so great would be the legal difficulties in the way. I believe I am not wrong in saying that the holder of a foreign diploma from a university once recognised, could apply for a mandamus, obliging the Council to show cause for such removal, and as neither foreign universities nor holders of their diplomas would voluntarily criminate themselves, and as a foreign university could not be brought into a court of law in this country, the General Medical Council would be powerless. Another argument I have heard advanced in favour of the admission of foreign diplomas is, that there was a power to place foreign diplomas on the register in the Act of 1858, and that the new claim was only continuing such a power. I cannot think this argument of any value. In accordance with the spirit and wording of every new regulating act, its restriction should not have a retrospective action. For instance, in the Apothecaries' Act of Ireland, in 1791, of England of 1815, in the charters of the College of Surgeons of Ireland, 1794, and, I believe, also in England, in 1800, it was provided that persons practising as recognised apothecaries or surgeons, at the passing of the respective acts or charters, should be legally recognised in the new act. In like manner, in the Medical Charities Act of Ireland it was provided that all persons holding dispensaries in Ireland at the time of the passing of the act, though not possessing any professional qualification whatever, should be recognised as "duly qualified," and placed on the register. But this power or right ceased, very properly, within one year after the passing of the act, and such persons could not now be registered or recognised as qualified to hold appointments. A similar power was given under the Medical Act of 1858, to protect the rights of holders of foreign diplomas then resident and practising; but it never was the intention in this act, any more than in the previous ones I have named, to continue such recognition. The protection was a mere act of grace in all the cases, and the very introduction of it with limitation, was in itself proof that it never was intended to introduce it anew. The French law is a very fair one, and it was on it I modelled my amendment of June 5 of this year, with regard to the admission of foreign diplomas at the last meeting of council. It was to this effect—That the holder of a foreign diploma desirous of being placed on the register should be entitled on such diploma to present himself for examination to some one of our licensing bodies, and on passing its examination and obtaining its diploma, to have his name placed on the register. It was urged against this that all the licensing bodies might enter into a conspiracy, like a trades' union, to deny him an examination, and I, therefore, although I thought the objection groundless, introduced an addition that in the event of licensing bodies refusing him an examination it would then be lawful for the General Medical Council to exercise their discretion in registering him. The Faculty of Medicine in France says to every foreign physician desirous of practising there, "We cannot enter into the merits of foreign universities, their shortcomings, or their sufficiencies. We will not, however, subject you, the holder of a foreign diploma, to undergo the four years of education we require from our own students, but we will require evidence that you may be trusted equally with our own physicians and surgeons with the care of life, and the only evidence we can rely upon is examination, and that you must undergo." If we in the United Kingdom go beyond this we shall let loose upon the public ignorance and imposition. It has been said that Government desired to have foreign diplomas recognised without examination. In this country the Government of to-day may not be the Government of to-morrow, and therefore the opinion of one Government may not be the opinion of another; but whatever party might be in power, I cannot think that any Government, or any Secretary of State, when made aware of the true nature of foreign diplomas, of the facts I have adduced to-day, would support the proposition of admitting foreign diplomas without examination; but were it otherwise, I believe it would be better to have no amended bill at all than a bill with such a cause. I would go further and say, better for the public to have the Medical Act of 1858 rescinded altogether and the registering abolished, leaving it as before to the public to judge for themselves of qualifications, than have those foreign diplomas legally placed beside our own. But under any circumstances let us not be parties to treat as trifles the lives of our fellow-creatures. Let not ours be the hands to fix the stamp of genuine gold on German silver or American green backs, and I am sure that in so acting we shall have the support of all well-educated Germans and Americans. I have dwelt thus long on the proposed admission of foreign diplomas, because I think the question of vital importance, and equally concerning the public and ourselves. I now come to another point which I consider of great importance in the introduction of an amended bill, and that is the constitution of the General Medical Council itself, and I think it argues much for the supineness or the good nature of the profession in the United Kingdom that they have borne with its present constitution so long. I believe we all recognize this principle in our constitution, that there should be no taxation without representation. But who pays the taxation that supports the council? You do, the whole profession that I see around me,

The bodies that send their representatives to the General Council pay not one shilling towards it. By whom are the council elected? Not by you; not one of the whole council is your member. The council are no more representatives of the profession than would the members of the House of Commons be representatives of the people if they were elected by the several corporations throughout the kingdom. If members of the House of Commons were elected in Dublin, London, and Edinburgh by the respective Lord Mayors and Corporations, they would surely not be representatives of these cities or of the people. The members of the General Medical Council, with the exception of a very small proportion nominated by the Crown, are the representatives of medical corporations, but not of the profession. These corporations keep the toll-gates through which candidates are to pass, but, except on some very rare occasions, take no further interest in the profession. In the Queen's University Convocation the graduates who have taken out degrees and are engaged in the battle of life in their several professions, are entitled to elect one-fourth of the whole number on the senate or governing body. In the London University the convocation elects half the senate, for on every second vacancy it sends forward three names out of which the Crown cannot travel. Such members are of the greatest importance, for they bring to the senate, a governing body the best of all knowledge, a knowledge of what has been done, of what is still required, and yet remains to be done. It is bringing into the senate the practical experience of the graduates from every phase of life. However estimable may be the members sent up by medical corporations as at present, however willing they are to do all in their power, they do do not draw their knowledge from a sufficiently wide field. There can be no difficulty in introducing this element of representation. The voting papers as used at present in University elections furnish the means. The registry gives the name and addresses of those entitled to vote, just as the calendar of a university gives its list of voters, and thus the members of the Profession in England, Scotland, and Ireland could each, without difficulty, elect the number of representatives allotted to each, and those representatives of the Profession, in direct communication with the whole working body of the Profession, would bring into the General Medical Council a stock and a kind of information the Council cannot command under its present constitution. I have long thought of this alteration in the construction of the Council, and it is because long thinking has strengthened the conviction of its necessity in my mind, that I have taken this opportunity of bringing it before you. I heard it said here yesterday in debate that if additional members were given to the General Medical Council the number on the Council and the expense would be too great. As to the expense, I think that should be borne by the parties who send the representatives. Let the Crown and the corporations pay for theirs. You now pay for all. As to the numbers, I quite concur in the view that the number is already too great; but instead of all members of the branch councils being also members of the General Council, let the General Council be constituted of delegates from the branch councils or faculties in universities; send delegates to constitute a central board, and the number will then be not half its present amount. I would rather not have any legislation for some time than have the patchwork legislation that has been going on. We have already had five acts passed since 1858. We are tiring the House of Commons. Let us not go forward again with another patchwork bill, but with a broad and well-considered measure. How this is to be done is the next question. Two ways present themselves. One is, that a draft of an amended bill should be drawn up, as on former occasions, and that every corporation or university, every general and branch association should press its own amendments during its progress through the House. I am not in favour of this. Votes of members would be obtained in support of this clause or that, not on its own merits, but on the influence brought to bear upon members, and members themselves might support or reject an amendment, influenced by partial representation or even by considerations of support to be obtained at some coming election. We should

"Meet again,
In thunder, lightning, and in rain—"

again stand round the cauldron with

"Double, double, toil and trouble."

Another way, and I am in favour of it, is, that a Royal Commission should issue a report upon the present state of the law in regard to medical education and qualification, and that legislation should be founded on its report. I should much prefer a Royal Commission, consisting of members of the medical profession and of men of scientific acquirements, to a select committee of the House of Commons; for the members of a Royal Commission would almost certainly be persons possessed of knowledge out of the profession, and they would have the assistance of some members of the Profession as members of it; while members of the House of Commons, appointed on a select committee, might probably possess very little, if any, knowledge whatever on the subject. However, either might answer; and the advantage of the previous step would be that we should be able to know and to consider fully the various views put forward previously to the introduction of a bill. As far as I have yet been able to bestow attention on the details, the changes I should like to see effected would be these. 1st—That the General Medical Council should be altered so far as to allow a certain proportion of its members to be representatives from the members of the Profession resident in England, in Scotland, and Ireland, each division of the United Kingdom furnishing its proportion to the Council as at present. 2nd—That this central council would perform all duties as at present, and be a court of appeal from the branch council. 3rd—That the central council should have power to lay down, subject to the approbation of the Secretary of State, a code of regulations both as to preliminary and professional examination; and that all graduates and holders of licences, degrees from our several corporate bodies, should be subject to such examination before being permitted to hold any public appointment, supported wholly or in part by public grant. I would exempt, as the regulations of the attorneys and solicitors do, graduates in arts of universities from the preliminary examination, and I would not give the central council any power to lay down any code of education. I would leave to the several licensing bodies, as at present, full privilege to suit education to the circumstances of each division of the kingdom. 4th—That the branch councils should appoint a board of examination for each division of the kingdom, and give to each candidate who passed a certificate to that effect. This would extend to the public and to the sick poor of our country the same protection against ignorance and incompetency that is at present afforded to our soldiers by the regulations of the army and navy authorities. There would then be a competition among them, not, as at present, to lower the standard of education and examination in order to sell their diplomas the more freely, but a competition among them to raise their standard, so that candidates who would afterwards have to undergo the test examination would seek the body that by affording high education and examination, insured to its graduates or licentiates the best security for passing that examination. The good effects I should hope to see from such a plan as I have sketched would be—First, the advantage to the public of having well-educated practitioners for the medical care of all classes, poor and rich. Second, the advantage to the Profession itself, by the exclusion of ignorant and incompetent persons, who now, entering into competition for public appointments with the well-informed, lower the scale of remuneration for all. Such persons would henceforward find their level in other pursuits requiring less education and less knowledge. I am not wedded to details. I see that the present state of the law is injurious to the profession and to the public. I give you the thoughts that have arisen in my mind after some years of close attention

to the working of the present laws. My views may be wrong in some particulars, or in all, but I shall be well satisfied if the observations I have made here to-day awaken your attention to the subject, for then out of it will rise a light to guide our way. For mainly to you and our own Irish Association, soon I hope to be one, I look for the intelligence and the energy to construct and carry a bill that will be a benefit both to the public and the Profession. The interests of both are, and ought ever to be, identical.

ADDRESS IN SURGERY

DELIVERED BEFORE THE

BRITISH MEDICAL ASSOCIATION,

ON THURSDAY, AUGUST 9.

By ROBERT W. SMITH, M.D.

PROFESSOR OF SURGERY IN TRINITY COLLEGE.

MR. PRESIDENT AND GENTLEMEN,—When the eye wanders over this vast assembly, collected in this noble hall, what thoughts crowd upon the mind; how the imagination is carried back to remote times. Three hundred years have rolled over, and become ingulfed in the fathomless abyss of eternity, since that proud and mighty monarch, whose queenly gaze is fixed upon us, founded this now time-honoured university. What a mighty mass of intellect has it fostered and matured; what a mighty host has it sent forth of men pre-eminent in every department of knowledge; men whose genius has shed an undying lustre upon the place of their education; men whose fervid oratory has been the ornament of the bar; whose burning eloquence has enchained listening senates; men whose works, marked by poetic elegance of language, by correctness of sentiment and maturity of judgment, have adorned the age in which they appeared. Upon this auspicious occasion, which will be marked in the history of our university *meliore lapillo*, the eye rests for the first time in the history of the university upon an assembly of the members of our profession, collected from the three kingdoms, and including representative men, the magnates in every department of surgery and medicine. This is, perhaps, a fitting moment to return my warmest thanks to the Board for the cordial and honourable reception they have given to the Association, and to the Provost in particular, for the desire he has shown to advance the object of the meeting by all means in his power. He has inaugurated his university reign by an act which the medical profession of Dublin will ever gratefully remember. It is no easy task to address such an assembly as this in a manner worthy of the occasion, and when I receive the invitation of the Council of the British Medical Association to deliver the address in surgery on the occasion of this their first visit to Dublin, though deeply sensible of the proffered honour, I felt myself, I confess, somewhat embarrassed. On the one side, there was the desire to take a prominent part in the proceedings of a learned assembly of my profession, and the hope that I might be able to bring forward something of interest—on the other, there was the conviction that the delivery of a general address, such as the majority of those heretofore pronounced at the opening meetings of this distinguished association, was as much beyond the sphere of my ability as it was unsuited to my taste. But having been officially informed that I was at liberty to adopt any course I chose, I no longer felt myself justified in declining to accede to the wishes of the Council—more especially as I felt satisfied that I would have the benefit of an indulgent audience, even though it were found that I possessed neither the pen of a ready writer nor the tongue of a fluent speaker. Perhaps, however, the calm consideration of a subject of practical importance may be found to possess a real scientific value. Before entering, however, upon the more immediate matter of my discourse, I am anxious to allude to a subject which has long been to me a source of regret. I allude to the almost systematic neglect upon the part of the junior members of the Profession of the writings of the surgeons of the past generation. It is, no doubt, true that since they wrote, surgery has made great advances both as an art and a science, though but thirty years have elapsed since a distinguished surgeon and an accomplished scholar pronounced the severe judgment that surgery, as a science, might be supposed to be buried in the icy fetters of the Arctic Pole, and that no noon-tide beam had thrown its horizontal ray across this frozen region to intimate that the night of days or of weeks may be at an end. But this Cimmerian darkness has passed away. "The stream of knowledge, which," as the eloquent Graves has expressed it, "not many centuries ago, shallow and narrow, toiled painfully to wear away or avoid the obstacles that impeded its course, now, fed from a thousand new sources, flow, along deep and rapid, sweeping away every obstructions and defying all human opposition." What was formerly the termination of a science is now but its commencement; what was formerly deemed unattainable is now elementary; so that it is impossible to forsee how far improvements may be carried. A short and transitory existence has been allotted to our bodies; individuals die and generations pass away, but the common intellect of mankind fears not the same fate nor shares the same brief mortality. In modern times surgery has advanced in some departments with giant strides, and in all its progress has been steady and uniform. Ovariotomy has become an established practice. Sub-periosteal resection has opened up a new field in the demesne of conservative surgery. The crushing of the stone has gone far to supersede lithotomy. Pressure has almost supplanted the ligature in the treatment of aneurism. Acupressure has divested hæmorrhage of its terrors. The endoscope, the laryngoscope, the ophthalmoscope have each and all shed the brightness of their beams upon the obscurest diseases, and illuminated their darkest depths and their inmost recesses with their lustrous light. The calculus lies exposed—the stricture is patent in the darkest canals. The polypus in vain tries to hide itself in the ventricle of the larynx. The delicate thread worm fruitlessly coils itself in the deepest corner of the eye. But all this affords no justification for the neglect of the writings of our forefathers, so prevalent in the present age. From my long experience as a teacher and as an examiner, I have no hesitation in saying that not one student in fifty—perhaps not one in a hundred—ever reads the classic writings of Pott, of Huj, of Abernethy, Bell, Munro, Dease, Colter, and a crowd of other minds who have stamped their fame upon the pages of the history of surgery as indelibly as those of Raw, of Glarn, of Lœmming, of Cotunners, Fraltopius, Eustachius—that glorious band of anatomists—are engraven on the temporal bone, a monument which, *ære perennius*, will last as long as a human being exists on the earth, as long as the world endureth. If the description given by the great men to whom I have alluded were either incorrect or insufficient, I could understand their works being cast aside. But is this so? Has anything been added to our knowledge of Potts' fracture, of Potts' gangrene, of Potts' calculus? Do we know anything more of Huj's luxation—of Huj's internal derangement of the knee-joint? I do not think so. Independent of the valuable information they contain, the works of the authors of the past generation further repay the reader by the correctness of their style, by the terseness and succinctness, and, at the same time, the fulness and clearness of their descriptions. There is no inflated language, no giving to self an undue prominence, no magnifying of trifles, no appropriation of merit that might not be justly claimed. They wrote with a pure object—the advancement of science and the benefit of mankind. There is still another important feature of their works—they are the result of large and long experience. There was no hurrying into print with some ephemeral production—no rushing into authorship in the hope that experience would follow—no premature publication of cases that had not terminated, of operations whose final result was not known. I cannot,

therefore, but deeply regret that it has become so little the fashion, particularly among students, to study these authors, and it is much to be lamented that the system of private instruction has so completely taken the place of almost every other source of information. It may, perhaps, be thought out of place to make any allusion to students upon such an occasion as this, and before such an assembly, but the members of the Association should recollect that a large proportion of them are lecturers or clinical teachers, and that their influence is considerable in guiding the studies of those entrusted to their care. How truly has it been said that the British clinical teacher occupies a post of heavy responsibility; he is an instrument for good or evil that it is fearful to contemplate; he exercises an influence without parallel in importance and extent. Were I to carry my hearers back to more remote ages, I think it would be found that the neglect of the works of the ancients was almost universal, and yet they abound in precepts that modern science has failed to set aside. Time would fail me were I to enumerate all the instances of modes of treatment, operations, &c., which are to be found in the works of the ancient authors, and which have of late years been brought under the notice of the Profession, clothed in all the glittering charms of novelty. I shall content myself with one example, and it is a most remarkable one. The arresting of hæmorrhage by acupressure has been described by Johannes de Vigo, a distinguished surgeon of Genoa, who lived in the 17th century. He was a man of great erudition, and divided with Capri, of Bologna, the merit of being the first to use mercury for the cure of the venereal disease. He says it was the practice of some to tie the veins and arteries, when opened, with a needle and thread. "Modus autem ligationis: eam aliqui efficiunt intromettendo acum sub vena desuper filum stringendo." Is not this the third mode of acupressure of Sir James Simpson? This, however, does not in the slightest degree detract from the merit of the distinguished baronet, who, it is obvious, was not aware of the passage I have quoted. Nor does his renown rest on this alone. The man whose genius made use of the anæsthetic properties of chloroform for the annihilation of pain, needs nothing more to transmit his name and fame to remote times. He has raised for himself a monument which will last as long as human pain and human suffering are permitted to exist. These ancient fathers of medicine have quaintly, but truly, been compared to giants—the patagonians of the time—who, taking us up in their arms and elevating us above their heads, have disclosed to us countries and prospects which they themselves never could discover. The learned professor then entered upon an elaborate exposition of the obscure and difficult subject of "Disjunction of the Epiphyses," and gave a lucid exposition of the means by which these injuries were to be distinguished from dislocations; and, having concluded this portion of his address, which was purely of a technical character, continued as follows:—I cannot terminate this discourse without congratulating the Members of the Association upon the success which has distinguished their honourable career. It is not in a scientific point of view merely that the British Medical Association has been a benefit to our Profession. Largely has it aided in removing petty jealousies, in smoothing ruffled feathers, and fostering friendly feelings. It is calculated to make the members of the Profession more cautious in the discharge of their relative duties towards society and one another, and to impress upon them the broadness of the distinction that exists between the path to honourable pre-eminence and the starting into notoriety by means which are unworthy, and which lessen the confidence of the public in all that concerns us. To accomplish these important objects is one of its wise purposes; its members seem to be well aware (to use the words of the eloquent author of the history of the Medical Profession in ancient times) that, "to the initiated, medicine is something more than a profession. It is a world within itself. It has its history, its politics, its philosophy, its literature, of which the world at large knows nothing. It has its subsidiary arts and occupations. It has its organizations and institutions, its ranks and grades of honour. It has polemics and dissensions, not always amenable to logic or the learning of the schools. In ethics, in traditions, in superstitions, it is older than the Church. In use before the civil law, it recognises no arbitrary enactments. Nature is its only court of equity." And who amongst us in this vast assembly can forget its everlasting charities, its unnumbered acts of silent and tender mercy, countless as the golden grains of sand! Who can forget its moving scenes of joy and sadness, its many sunny aspects; its benignant, ennobling, and liberalizing influences, which few beyond our own circle can properly appreciate, and none so well understand as ourselves! No wonder, then, that the members of our profession, surrounded and drawn together by such hallowed ties, should be disposed to band together as a brotherhood. Such has always been their course. The Druids of ancient Gaul and Britain, the Asclepiadæ of Greece, the priests of Ancient Rome, the Llamas of Central Asia, the Vaidhyas of India, the fraternities of the middle ages and up to the present time, the countless societies and colleges of our own and other lands devoted to the healing art, are all in proof of this; so that wherever social freedom has existed, wherever tyranny would permit, internal organization and development have been the rule of our profession. And well it is that it is so. We are thereby better enabled to understand our own position, to know how far we have advanced, to whom we owe our progress, the labour that is still before us, and the places we are likely to occupy in the estimation of those who are to follow us. It only remains, sir, to thank my audience for the attention and patience with which they have heard me, and for the interest they have appeared to take in the subject-matter of my discourse, notwithstanding the number present who are as familiar with the topics brought before them as I am myself. I thank them, not merely as a polite formality, but sincerely and from my heart. Those familiar with me know that I am not in the habit of speaking one thing and thinking another. Members of the British Medical Association, for the present I bid you farewell. I take my leave for the present of that noble institution whose founder was, as it were, but yesterday taken away from amongst you, and whose place knoweth him no more at all for ever—an institution, however, the abiding success of which he lived to witness. He placed the texture upon the loom, and he lived to see the well-woven fabrics developed into a bright garment—a radiant robe which soon enveloped in its ample folds the medical profession throughout the length and breadth of mighty England; and my hope and trust is that our children's children—that generations still to come—will behold it with its colours unfaded and its brilliancy untarnished.

Original Communications.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

OF FEVER: OF THE MODE OF INVESTIGATION,—ITS REAL NATURE, AND THE CAUTION REQUIRED IN SO DOING.

THERE are few subjects on which more has been written than on that assemblage of phenomena to which we give the term fever. Neither, perhaps, is there any one which has more impressively illustrated the various errors which have so often characterised medical researches.

The mischief of that arbitrary division which respectively restricts the labours of the Physician and Surgeon—

the inaccuracy of our nomenclature—the confusion arising from too much reliance on morbid anatomy, as distinguished from pathology—the tendency to regard that as an entity which is a perpetually varying series of phenomena—have each tended to confuse the subject, and to surround much of the difficulty which is inseparable from scientific investigation, with a great deal more that I believe to have been factitious. The very errors seem to me to have suggested the mode of avoiding them, and to have shown that what is required is somewhat more painstaking, and a view that is more circumspect, and therefore more inductive of the various phenomena. Some years since, I put forth an analysis, and that it might be subjected to the severest test, I had fifty copies struck off for private circulation amongst scientific men. It did not, I think, excite much attention in this country, but the Americans, under the auspices of Professor Dudley, reprinted it *in extenso*. All I can do here is to endeavour to give an abstract of the argument, for it seems to me essential to the understanding of what is meant by "constitutional treatment," that, amongst other things, there should be clear and definite ideas as to the nature of the so-called "fever." Few, if any, *began* the investigation of fever in the true spirit of induction more than Dr. Fordyce; but he had scarcely more than begun, when he disregards the very principles which he seemed desirous to observe, by excluding from his investigation fevers which fall under the care of the surgeon. In so doing, he not only excluded a number of phenomena which are essential to the investigation, but he entirely deprives the analysis of the best of all tests, because it is the most severe, and which I do not hesitate to call the synthetical argument.

Now, as the first steps in an inductive research are the most important, I shall not apologise for submitting so homely an illustration as the following:—Suppose a man who had never seen a bird or a feather were presented with a bundle of old pens, tipped with black, and so on, but with one quill amongst them in its natural state, and desired to investigate their use in nature; well, he would find that in length, amount of black tip, length of feather, or some other property, that there were not two exactly alike (we shall in due time see what is intended by the quill). Well, this variety is just what he will find in many investigations of disease. Puzzled at first, he looks for some property which they possess in common. Well, he finds that they are all tough and light, and these properties are brought into higher relief by the very diversity which had puzzled him before. He now assumes that whatever may have been their use in nature, it was something to which strength and lightness were essential. On this, he asks questions, institutes experiments, or forms theories, which may be right or wrong; but he never has occasion to lose sight or undervalue the two common properties. In the analysis referred to I have gone to work in the same way. I have cited a number of fevers, so-called; from the mildest, the most fatal, the best known, and from those which fall under the denomination of common, as well as those regarded as specific, such as remittent, intermittent, and continued fevers, yellow fever, the plague, small-pox, measles, puerperal fever, and so on, in order to bring out certain common characters as distinguished from any in which they differ. It is, indeed, but a faint sketch that I can give of the argument; therefore, I must refer the reader who desires to study the analysis to that work. One of the first things that I observe is, that in all fevers, however severely epidemic—1st. That many escape; and 2nd. That in no individual is any one able to predict whether he will or will not be attacked by the prevailing epidemic. I enlarge on this well-known fact, because it leads, by a chain of many links it may be, to clearer views of the problem before us.

There is no fever which does not furnish examples of this exception; whether we examine common (to use a conventional term) or specific, whether it is a fever seen in the practice of physic or surgery in the ordinary sense of those terms. It is, however, a fact much more instructively impressed in some fevers than others. Suppose we take as a specimen here the plague and small-pox. No fevers suggest more powerfully the influence of atmospheric conditions, yet what we shall by-and-bye retain as alone amongst the common characters of fever, are nowhere more marked than in these formidable specimens. But of that under view at present: in the worst plagues, not only many escape, but, in the general immunity, some of these escapes are remarkable and suggestive.

Amongst a million and a-half carried off in four years, Mr. Baldwyn, Consul-General in Egypt, could not ascertain that a single oilman had suffered.[1] It is said that in Tunis those who work in oil-stores are never affected by the plague.[2] The exemption, also, of tanners from the plague has been observed in Rome, Cairo, and other places.[3] Persons labouring under chronic disorders, and the extremes of youth and age, seem less liable; yet children at the breast, when deprived of the milk, died by hundreds.[4]

In a plague at Manchester infants escaped, and in one at Moscow very few under the age of two years died. The Proto-Medico at Malta said that several infants at the breast took milk until the mothers died without being affected. Sometimes there have been remarkable exceptions among foreigners. In a plague at Basle only Swiss suffered; Italians, French, and Germans escaped. At Hafni, in Denmark, a similar immunity occurred to the English, Dutch, and Germans. Sir Robert Wilson has recorded that in Egypt the British army passed through several villages affected by the plague without its being communicated to a single soldier, and on another occasion Assalini reported that the French army were attacked by the plague, when, notwithstanding their continued intercourse, the Egyptians and Assyrians remained unaffected. It has been observed in certain plagues in Constantinople, that Armenians were the least affected by it. Catholics, (as supposed in relation to certain religious observances), have been observed sometimes to be more affected than Protestants. Various other interesting differences have been observed amongst Turks, Armenians, and Jews. In London, it was observed that amongst those most obnoxious to the plague were butchers. External affections, as buboes and carbuncles, as they are called, were by no means unfavourable to prognosis. Russell observes that amongst the most fatal cases were those who had no bubo.[5] Orrœus remarks that those with bubo for the most part recovered, whilst those with carbuncle or petechiæ died. Both significant under the application of the law of determination to surface.

Those, however, who wish to see what plague contributes to the phenomena of fever will find a most interesting book in Hancock's "Laws of Pestilence," the learned author of a book on instinct, and formerly a colleague of mine, as remarkable for his calm and patient industry in the collection of facts, as he was in his logical application of them. His labours, too, are the more valuable to me, as our objects were different—his being to prove the indigenous origin of pestilence only. No *single* disease is so instructive as to the nature of fever as small-pox. The plague itself has probably not swept away greater numbers. In the Spanish conquest of America, a history not less interesting in its medical than in its moral aspects, all the direct and indirect cruelties of the Spaniards were not more destructive than the small-pox. It has been computed that in less than a century after the arrival of Columbus, it had destroyed more than half the population. In one year (1590) it spread so along the coasts of Peru, that it swept away nearly the whole of the Indians, the Mulattoes, and the Mestichos, in the cities of Potosi and de la Pay, and yet not one Spaniard died of it.[6] But I need not multiply this kind of evidence. The extreme fatality of small-pox is well known. Very numerons are the instructive phenomena of this disease. Let us take the more salient. The

1 Volney's Travels.
2 London, Thomas, Practice of Physic, p. 228.
3 Ploucquet Bibleothek, vol. vi., p. 364
4 Investigation concerning the Plague in the Levant.
5 Russell on the Plague.
6 Clereh's History of Letter from Ct. Uslano to Gensalvo de Solena.

disease then so destructive, so terrible, so much the nature of one proceeding from a specific poison, which, when inoculated, is brought into actual contact with the blood or other fluids of the body, can be so disarmed of all its more virulent characters by a little preparation of the recipient as scarcely to retain the character of disease; and yet a person thus relieved may impart the disease to a person unprepared in its most virulent form.[1] Here is, indeed, a fact pregnant with instruction to Surgeons as well as Physicians, but scarcely, I think, ever fully utilized. When inoculation was first introduced, one of its opponents wrote to prove that out of 182 cases, one had died![2] He would, no doubt, have made it two if, with truth, he could have done so.

These glaring instances, as Lord Bacon would have called them, only show in a more marked form what may be equally exemplified in the practice of Medicine and Surgery on all other kinds and degrees of fever. Unless, however, we trace the links in the chain from the more striking to the less marked phenomena, we shall miss the lesson they teach. We shall be led to regard phenomena as peculiarities which are only more highly-developed common characters of fever, and shall be very apt to adopt a nomenclature which will help materially to obscure the further steps of our investigation.

Almost every kind or degree of fever has some one feature more striking than another, but all fevers have certain characters in common, and they form the only safe basis for further inquiry into the nature of fever. The yellow fever, for example, shows something more plainly than we can see them elsewhere, but whether we examine it and the other varities cited in the analysis to which I have referred, or the various examples of fever occurring in the practice of surgery, you still find certain things in common, as we shall see.

The morbid anatomy of fever has led at times to very curious and erroneous conclusions. When I was for a time, some years ago, doing duty as surgeon to the London Fever Hospital, I was struck by the remark of Fordyce, that fever is a disease of which you can form no idea from the examination of the dead body, but he might have said the same of many other diseases. Morbid anatomy is not pathology, however a useful element in it, and even confusing these terms, as is often done in nomenclature, is not without an injurious tendency.

In fever there is no part of the body in which you may not find indications of morbid action; but there is a great deal of difference in different cases, and different climates. In life no part is more interesting than the skin in fever. The alternations of the state of its circulation, its temperature, the variety in the quantity and in the qualities of its secretions, the multiform vascular phenomena exhibited, which are termed purples, vesicles, pustules, rashes, &c., all exemplify the powerful attempts to determine to the surface, and have very interesting relations to the character and the severity of the malady. Numerous affections extend in certain cases to the cellular tissue of a more or less inflammatory character. In the dead we usually observe vascularity, other morbid changes in the mucous, or serious membranes, often both. We also have structural changes in the organs themselves, but it is important to remember that these almost always imply previous disease, severe cases, or such as occur most commonly in tropical climates. The distinction between recent and previous disease of structure is easy enough to a practical pathologist. In the analysis the morbid appearances are traced through the various structures I have enumerated, and referring the reader who desires more information, I will merely add the impression that they convey, as regards the law of the site of diseased actions; how many diseased appearances we see on the skin in various fevers as compared to all other structures; how many in the cellular tissue and mucous membranes as compared to all other internal surfaces or structures. The mucous surfaces being, in fact, strictly speaking, external surfaces; how many, again, of the serious surfaces when compared to the organs they invest, notwithstanding, too, that the disturbing influences of the body are so commonly devoted to the organs invested by them; and here, again, when organs themselves become affected in fever, how numerous and varied are the disorganisations of other organs as compared with the brain. The *functions* of the brain are constantly more or less disturbed in fever, whilst the morbid appearances are so commonly treated in the membranes by which it is invested or traversed. There seems to me something highly interesting in the conservative tendency, and perfectly in harmony with the law which I have enunciated. I regret I have no more space, but must now go at once to the common characters of fever. Here it is, that both in the analysis and the synthetical argument we derive so much light from surgery. Here we have fevers of infinitely varying type; we have not to deal with external forces which are so recordite, as miasma of various kinds, or of atmospheric changes, of which we know comparatively so little, but with forces, with whose qualities, whether chemical or mechanical, we are familiar, and where they are applied with such frequency to supply us with a large number of observations and experiments, properly so-called, because they may be said to be furnished to us by nature herself.

We have, in the practice of surgery, an immense range of inquiries of all kinds, with and without fever, and in some cases the contrast occurs where there is no perceptible difference in the injury itself. Here we have opportunities of observation as to the condition of the recipient, such as we can easily obtain in no other manner. The importance of that condition has been, in general sense, admitted universally, but what is it? Is it a state that can be only designated, sometimes more, sometimes less, vaguely by the term predisposition? or is it a state that, with a careful notation of the existing, with certain antecedent phenomena, may be so deduced as not only to admit of a more definite expression, but one which will enable us to add to that treatment which is applicable to all fevers, such as is required not merely by the type of the fevers which may be presented to us at one time, but to *the individual case.*

I hope to say something of this in the next paper. In the meantime we submit that the common characters of fever, as gathered from a careful review of the phenomena in the living, as well as the examination of the dead, as put forth in the analysis, and where we deduce the nature and treatment, are the following:—

1. In all fevers one or more of the functions of the body are in a disturbed condition.
2. In no form of fever is it necessary that, however prominent the disturbance of this or that organ may be, it should be disturbed in the same manner.
3. That no fever subsides but as a sequence or coincidence with some secretion[1] or action of vessels.
4. No fever can, with any certainty, be communicated from any one given individual to any other given individual.

1 Dr. Irwin's Letter to Cotesworth. London. 1723.
2 Researches into the Laws of Pestilence. By Thos. Hancock, M.D. London. 1827.

CONTRIBUTIONS TO THE COMPARATIVE ANATOMY AND PHYSIOLOGY OF THE GALL BLADDER.

By ALEXANDER MACALISTER, L.R.C.S., L.K.Q.C.P.;
DEMONSTRATOR OF ANATOMY TO THE ROYAL COLLEGE OF SURGEONS; ASSISTANT-SURGEON TO THE ADELAIDE HOSPITAL, AND ONE OF THE HONORARY SECRETARIES OF THE ROYAL GEOLOGICAL SOCIETY OF IRELAND.

(Continued from page 131.)

SOME cases have fallen under my notice in which I could find no trace of any folds, but these are very few, not

1 By secretion here is meant equally increase of some natural secretion, the occurrence of some other, as serum, or pus, or new depositions of any other kind required for the separation of mechanical injuries, and so on.

oftener than once in fifteen cases, or four in seventy. Vertical replications of mucous membrane in one or several rows unite together the transverse valvular folds in some, but these are not constantly present. These valves were early described by Spigelius in 1620, afterwards by Blancard in 1695, more recently by Heister, Wolff, and others. Their function as an Archinedean spiral arrangement for the upward propulsion of the bile was first surmised by Amussat, but to this theory there is a fatal mechanical objection, that their valvular plicæ are immoveably fixed and are not continuous ; we must, therefore, look for their use in the older and simpler theory, that they merely serve to delay the inward and outward current of bile in flowing to and from the sac, and to prevent the unnecessary escape of this secretion, until the pouch has been subjected to stimulation or pressure, for I have found, when these valves were well-marked and the sac slightly distended, that no bile would flow out until compression was brought to bear upon it. There are no glands placed in the substance of the valves, but a few clusters of mucous follicles occur in some of the intervals between these folds near their roots—four of these I found in one interspace, and single ones in others. Some muscular fibres are present in the bases of the upper folds, but they do not seem to exist in the lower valves, or those nearer the duct. The glands, on the contrary, seem to increase in number as we descend towards the ductus communis choledochus.

When we descend the animal scale, we will find that among the quadrumana this organ is almost invariably present, indeed the only reputed exception is the *Oustiti*, which, according to Daubenton, is devoid of a gall-bladder. This, however, may be a mistake, as it is certainly contrary to the analogy of all the other individuals of the order. Its position in quadrumana is always similar to that in man, and its structure and proportion to the bulk of the liver are usually the same as those in the human body. It is long and tortuous in the *Chimpanzee* and *Macacus*, shorter and somewhat triangular or rounded in *Cebus* and *Nycticebus*, pyriform in *Cercopithecus*, and more cylindrical in *Rhesus* and *Inuus*. The largest, proportionally, usually exists in *Simia*, the smallest in *Ateles*.

In *Cheiroptera* it is likewise invariably present, and well-marked ; its varieties in size do not seem to have much relation to the differences of food in the individuals of this order, and the species comprising the neighbouring order of *Insectivora* have, in nearly every instance, this sac very well developed. In the *mole* it is small and rounded, but is larger and somewhat globular in *sorex* and the *hedgehog*. I have not, however, been able to see the hepato-cystic ducts which some anatomists have described in the latter.

Of the *Carnivora* few, if any, are destitute of it. Among felines, it is long and convoluted at its neck in the lion, tiger, leopard, and ocelot ; triangular in the lynx ;[1] pyriform in the common domestic cat, in some specimens of which it has been found double.[2]

Similar instances have been recorded in the kinkajon (*Cercoleptes*). Among canines, it is wide and long in the dog, in whom I have found three to five valvular folds at its neck, and many hexagonal alveoli, with small, secondary, regular pits, containing numerous compound racemose mucous follicles. It is cylindrical in the marten, badger, and civet ; wide and nearly globular in the brown bear. In the wolverene and racoon it is superficial, and lodged in a shallow fissure, while it is deeply sunk into the substance of the gland in the marten, stoat, weasel and ferret. It is very large and tortuous, somewhat intestiniform in the syagush or ratel. The otter, walrus, and seal, besides the ordinary pouch which, in these animals, is smaller than usual, possess a secondary reservoir in the wall of the duodenum. In the latter animal it is situated a short distance below the pyloric orifice of the stomach, and in a small, young specimen, three feet long, this secondary cavity measured 13-16ths of an inch in length, and half an inch wide. In this individual its capacity was three-fifths that of the ordinary gall-bladder. Its shape was ovoid or elliptical, and it presented an appearance of slight sacculation, due to three or four constrictions on its outer coat. The common hepatic duct, which is continued into its upper end, gradually expands into the sac without any valvular fold at the point of communication. It is placed on the posterior and right side of the duodenum, and is beneath the peritoneal, longitudinal, and circular muscular coats of that intestine. It has, however, a special circular coat of its own, consisting of a few irregularly scattered fibres. The intestinal opening is at its lower end, and consists of a small oblique aperture one or two lines in diameter, guarded on its upper and right side by a crescentic valvular fold, not, indeed, a true, perfect valve, as I have been able to drive fluid by compression into the sac from the duodenum without much difficulty. When the sac is opened its mucous aspect appears very smooth, almost devoid of rugæ, as the few longitudinal folds on the intestinal side scarcely deserve the name.

In the seal there have been described several hepato-cystic ducts, but these I have never been able to detect by the most careful examination. There are, indeed, sometimes small hepatic ducts, opening into the cystic duct very near the neck of the gall-bladder proper.

This intestinal pouch in the seal has been the subject of careful investigation by Tiedemann,[1] Kuhl,[2] and Home.[3] The first of these authors describes it as probably a receptacle for the pancreatic juice as well as the bile, an opinion which has been objected to by Meckel, and with reason, as in many cases the pancreatic duct does not open into it, but, traversing the inferior coat of the diverticulum, opens by a separate aperture into the duodenum. Out of five seals which I have dissected, I have not seen any other arrangement than this last described, so in these cases it could not be a vesicula pancreatica.

The Rodentia are rather variable in the presence or absence of this sac. It is present in the guinea-pig, marmot, jerboa, capybara, cavy, beaver, dormouse, porcupine,[4] arvicola, hare, rabbit, myogale, spalax, some species of squirrel, dasyprocta. It is absent in the rat, common mouse, and other species of the genus mus, hamster, cricetus, many species of squirrel, petaurus, echimys, prehensile porcupine, coendou, and others. With regard to this variability, it will be seen that the presence or absence of this sac is independent, *first*, of the natural subdivision of the order into claviculata and non-claviculata ; and, *secondly*, that it is not present or constant in the genera of each family, or in the species of each genus ; thus, for example, the *hystrix cristata* possesses a gall bladder, but *hystrix prehensilis* does not. Many squirrels possess it, and others are destitute ; and some species of *mus* are provided with it, while many others have none. Meckel notices that in many species in which the bladder is absent, the bile duct opens higher into the intestinal canal, perhaps, in some measure, to act as a compensation.

The Edentata often possesses this sac—we find it present in *dasypus* and *manis*. In myrmecophaga, Hunter describes it as attached to ligamentum teres. Wagner mentions that the *Aard-vark*, or *Orycteropus* of the Cape, possesses two bladders, united by their common peritoneal investment, each of these ends in a tortuous cystic duct, which unites with three hepatic ducts, forming a single ductus communis choledochus. The *ai*, or three-toed sloth,[5] is unprovided with a gall bladder, while the *unau*, or two-toed sloth, possesses one.

In the Ruminant order its presence is similarly variable ; it exists in the ox, goat, gazelle, sheep, musk-deer, axis,[6] and nylghau, and in the first and fourth of these distinct

1 Crisp, P.Z.S., 1862, p. 135.
2 Wilson, Cyclopædia of Anatomy and Physiology. Art. Liver. Vol. III, p. 164.

1 Tiedemann ueber einer Behälter fur der Bauchspeichel in Seehen Meckel's Archiv. fur Anat. 1819.
2 Kuhl Beiträge fur Zoologie und Vergleichen, Anat. 1820. II. p. 41.
3 Philosophical Transactions, 1824. P. 235., Pl. I.
4 Hunter saw a porcupine without a gall bladder.
5 Hunter's Essays and Observations, vol. ii., p. 179.
6 Crisp, P. Z. S., 1862, 136.

hepato-cystic ducts can be demonstrated.[1] The ox, according to Monro, has a well-developed muscular coat to its sac. There is no gall bladder in the camel, llama, alpaca, guanaco, red-deer, fallow-deer, elk, reindeer, napu, sambur, cariacus, and most of the cervidæ. In some its presence or absence seems to be the subject of variety. The well-known case of the giraffe is a good example of this, in one individual of this animal Professor Owen found no gall-bladder, and in another he found two. Dr. Crisp records its being absent in three individuals, but Gordon mentions its presence in one. It is commonly said that the hollow horned ruminants possess this sac, but that the solid horned are destitute of it, but to this there are exceptions. Aristotle notices that the sheep in Eubœa have no gall bladders, but those of all other places are endowed with this appendage.

Cetaceans are uniformly destitute of this organ, as far as hitherto is known, certainly it does not exist in *Phocæna*, *Delphinus*, *Globiocephalus*, or *Balaenopetra*, and it is recorded as absent in several other genera.

Among the *Pachyderms* we find, likewise, variations, as we might expect in this rather heterogeneous group of animals. It is present in the masked pig of Japan, wart hog, and in the common pig, and the Indian boar, in all of which it is deeply embedded in the hepatic substance. It is absent in the peccary and tapir, the elephant, rhinoceros, horse, and ass. The horse has a dilated duct, but no proper sac, and whether, as the result of the absence of the sac or no, I have been informed by an enterprising friend who tried the experiment of eating the liver of an ass, that even when properly cleaned and cooked, it had such a strong taste of bile as to render it "disgustingly unpalatable." I am not aware as to whether this part of the animal is utilized by our modern hippophagists, and if so, whether the peculiarity noticed above is constant. The *hyrax*, or *daman*, according to Owen, has one central and two lateral sacs, and the bladder of an unascertained quadruped in the Hunterian Museum is described as having three similar accessory cavities.

In Marsupialia it is invariably present, I have found it both in the opossum and kangaroo. In *Phalangista* its position is peculiar, as it occurs on the right of the third lobe from the left extremity of the viscus, but this arises from the unusual fission of the left lobe, which thus masks the typical position of the sac. I have once seen a similar variety in man proceeding from the same cause. In *Macropus* and *Didelphys* an intestinal sac has been described by Leuckart, not always very distinct, however, as I failed to find it in one Virginian opossum, and in a wallaby.

All the monotremata possess this cavity in a condition of full development.

In thus reviewing the orders of mammalia it will be seen that the gall-bladder is constant in bimana, quadrumana, cheiroptera, insectivora, carnivora marsupialia, and monotremata. It is uniformly absent in the cetacea, and variable in edentata, pachydermata, rodentia, and ruminantia.

Among the birds the presence of this sac is the rule, and the exceptions such as the parrot, macaw, pigeon, numidian demoiselle,[1] and ostrich, are not numerous. Hepato-cystic ducts occur in some of the natatorial order, as the cormorant, and some of the laridæ, also in the eagle. The guan or Penelope cristata has a dilatation upon the hepatic duct, as well as a typical gall-bladder.[2] In the swan also the hepatic duct is widely dilated.

I am not aware of any example of the deficiency of this sac in reptilia, it is much more constantly present in this class than in any other; but it is liable to greater varieties of position among reptiles than among other animals. Among chelonia it is usually embedded in the hepatic substance, sometimes completely enclosed as in *Testudo Mydas*, less so in *Testudo Europœa*, and nearer the surface in *Emys Geographica*. In ophidia it is placed remote from the liver, as in the common snake and rattlesnake; in the latter we can see the hepatico-cystic ducts very clearly, some of which, missing the gall-bladder, obtain occasionally a separate entrance into the cystic duct, which traverses the pancreas, as is well exhibited in a specimen in the Museum of the Royal College of Surgeons, Ireland, described by Houston in his descriptive catalogue of the Museum. Crisp[1] found it eighteen inches from the liver, in a python ten feet long.

Lizards are uniformly endowed with a gall-bladder as are the crocodiles and alligators. In amphibia it exists, and in all instances examined of this class, and of the loricates, they seem to possess distinct hepato-cystic ducts.

It is developed nearly as universally in fishes, a few like the *Lamprey*, *Amphioxus*, and *Myxine*, being destitute of it. In some, as the great selache, it is placed at some distance from the liver, and hence this animal was described as destitute of a gall-sac until De Blainville demonstrated its presence; the *Galeus* or *Tope* and the *Lamna* or *Porbeagle shark*, its congeners possess it, and in the latter it is embedded in the liver substance. There is in the Hunterian Museum a specimen of a cod's liver with two gall-bladders. The lophius possesses a duodenal sac as well as a gall-bladder.

In taking a brief retrospect of the vertebrate sub-kingdom, we now see that this organ is most constant in reptilia, next in pisces, more variable in birds, and most so in mammalia. This, however, is just what we might have predicted, for there are more various modes of feeding, and of materials for food in the last named class, than in any of the preceding.

II. We will briefly examine, in the second place, the development of the gall-bladder in its normal condition, and the abnormalities which are described. In the development of the chick in ovo, the first trace of this sac is detected on the ninth day. In the human ovum, at the beginning of the fourth month, it appears as a small cord-like projection, apparently solid in the centre, but towards the end of this month it becomes hollow, and gradually dilates at the fundus, becoming in shape an elongated cone; early in the fifth month, according to Kölliker, the first wrinkle appears on its mucous lining, but I have never seen them distinctly until the beginning of the sixth month. Bile first enters the sac late in the seventh month, and the sinuosities of the neck are developed at the eighth. It seems to have its original in an off-shot from one of the hepatic ducts, at least, so it seemed to Remak,[2] in the chick. At first, it merely contains a little mucus of an alkaline reaction, resembling that of the intestinal follicles, and its cervical valves are not visible before the end of the sixth month; wide transverse ridges in the seventh month appear on the mucous lining of the sac, leaving intervening sulci, and these become interrupted by longitudinal ridges and grooves.

Of abnormalties, in structure and development, many are described; we may group them into varieties of size, shape, position, number and structure.

1. Of size and capacity, I have seen it not larger than an almond, in the liver of a male subject, in whom the vesical fissure of the liver was well-marked, but closely covered with peritoneum, and the small rudimentary gall-bladder lay between the layers of the gastro-hepatic omentum, its cavity was quite obvious, and I filled it with injection with great facility, from the ductus communis choledochus, its coats were of normal thickness, and there was no calculus present.[3] I have seen it six inches long, and nearly ten inches in circumference, in another instance, in which the duct was not obliterated. Cruveilhier notices cases in which the sac contained six, eight, and ten pounds of bile, and Gibson[4] reports an instance where it held eight pounds of inspissated bile. The former author, likewise, notices an instance in which the fundus of the sac approached very close to the umbilicus.

2. Of varieties of shape I have seen it in man, cylindrical,

1 According to Perrault, but Hunter says that it has one.
2 Hunterian Museum, Phys. Cat., vol. i, p. 241.

1 Proc. Zool. Soc., 1862, p. 134.
2 Remak untersuchungen z, Entwickel. 1, p. 118.
3 Medical Press and Circular, Vol. I., p. 225. The cast of this liver is in the Museum of the Royal College of Surgeons, Ireland.
4 Edinburgh Medical Essays.

battledore-shaped, conical, globular, oval, elliptical, or semi-globular, and rarest of all, tortuous and intestiniform, a form described by Meyer in his Anatomy, vol. iv., p. 458.

3. Among varieties of position or relations, leaving aside all those instances of displacement depending upon dislocation of the liver, we may have a pendulous sac, sustained by a mesocyst, which may be complete or partial. It was probably an instance of the latter nature which was noticed by Cruveilhier, as before referred to, where the fundus was bent downwards, and rested upon the abdominal wall near the umbilicus. The gall-bladder may touch the diaphragm, through the deficiency of the overlying hepatic substance as I have seen, and as before referred to. In this class the few rare and doubtful cases of hepato-cystic ducts may be placed, but most of the cases of the kind published are, as far as I know, not very reliable. An altered position of this sac in the liver is rare, but Huschke[1] describes an instance in which the sac lay in the part of the longitudinal fissure lying over the round ligament, and Horner[2] found it to the left of the umbilical fissure on the small (left ?) lobe.

4. Variations of number may be partial or complete. Sömmerring mentions a case of complete duality, like the normal state in orycteropus, described by Wagner, or the variety noticed by Wilson in the cat and kinkajou, by Owen in the giraffe, and by Crisp in the sheep. Partial attempts at duality are sometimes found, as in the longitudinal partition described by Haller in man,[3] and by Ruysch in the ox,[4] or the transverse constriction or septum, which I have seen, and which is described by Huschke as seen in a specimen in the Anatomical Museum of Jena.[5] A partial attempt at variations of this nature may sometimes occur in the form of diverticula or culs de sac, pendent or projecting from the body of the cavity ; this appearance is described by Huschke. Perfect absence of the cavity is very rare indeed, but cases of it are recorded by Amussat,[6] Weidemann,[7] Huber,[8] Büttner,[9] and Richter,[10] the latter case was in a woman, the subject of intense and persistent jaundice.

5. Varieties of structure are frequent as results of disease, but rare as the results of abnormal development. Few of the former bear upon the question of function, and consequently they may be passed by. Thickening of the coats may result from obstruction of the duct, and in a case of this kind Amussat saw the middle coat thick and strong, seemingly made up entirely of muscle tissue. Thinning and distension may arise from the same cause, and the opposite condition may attend the presence of a calculus around which the sac may contract. The pathological conditions to which it is subject are—inflammation, diphtheritic exudation, thickening, patches of excoriation, circumscribed ulcers with elevated edges, abscess between its coats or in its cavity, sero-cystic degeneration, calculi, atrophy or scirrhus, osseous lamellæ on the exterior, and hairs on the mucous aspect.

III. In considering the physiological bearings of all these varying conditions with regard to the use of this organ, we notice that there is a slight difference between the hepatic and cystic bile, for when this fluid has sojourned long in the gall-bladder it becomes less watery and much thicker, its saline components not being proportionally increased as some parts of them are absorbed.

That the gall-bladder is a temporary reservoir for bile we discover on first sight, and that, when not required, this fluid regurgitates through the cystic duct into the sac, to be expelled into the intestine when needed by the contraction of its fibrous coat, and by the pressure of the ascending portion of the duodenum, is obvious, but why its presence should be apparently so capricious[1] is the point to which we shall direct our attention, and we will find, in the firs place, that its presence in carnivorous animals is invariable, the zoophagous cetaceans being the only exceptions, but in herbivorous animals its variations are most marked. The consideration of food may thus have some influence in determining its presence, but if we turn our attention to the manner and times of feeding we will find that there is a great probability that it is in reality the main point of importance in producing the necessity for this reservoir. As a general rule, carnivorous animals take their food at considerable intervals, and in large quantities at a time. This is the habit in all the reptilia and amphibia, and during its digestion they will lie in a heavy torpid state. I have observed this in many snakes, common lizards, and salamanders, and in the common Greek tortoise. Thus we find that in reptilia, in which this is the rule, the presence of the sac is constant. Among other carnivorous mammals the same obtains, and likewise with man and quadrumana, insectivora, and cheiroptera, many of which hybernate, and so spend long intervals without food. The same conditions occur in marsupialia and monotremata ; even the vegetable feeders of which allow considerable intervals of feeding ; while in the cetacea, whose immense bodies have to be sustained on small fish like osmerus (said by Lilljeborg to be the food of Balænoptera), or on still smaller molluscs like clio. A constant feeding is necessary to provide their huge structures with sustenance, and so no gall-bladder exists. There are, however, many difficulties in the way of this theory ; for example, why fishes, which are circumstanced much as are the cetacea, have usually a gall-cyst, but the habits of fishes in general are not those of constant feeding, and there is a lesser disproportion between the food and the feeders in the class pisces than in the cetacea. This is borne out by Dr. Crisp, who found it smaller in ravenous fishes[2] than in others. Birds in general are also accustomed to feed at intervals, as the processes of nidification and hatching occupy much of their time. The ostrich, however, which takes no trouble in either of these works, has no gall-bladder ; and the parrots, who usually make very rude nests in hollow trees, are likewise exceptional. Although it would be hard to see why the cuckoo,[3] who takes no part in either of these processes, should be provided with a sac, except that perhaps its periods of migration afford intervals when the use of a gall-bladder is necessary.

In the orders Pachydermata and Ruminantia, the conditions of feeding are very variable. The huge stomachs of oxen, and their allies, can take in large quantities of food, which then require considerable periods for digestion, while the horse, whose stomach is proportionally small, requires supplies at constant and shorter intervals. These are some of the leading considerations which point to the conclusion that the function of this sac is required in all animals whose intervals of feeding are protracted, and that it is comparatively useless in those animals in whom a continual stream of bile from the liver is required to aid in the almost constant process of digestion.

1 Huschke, Encyclopædie Anatomique. Vol. V., p. 145.
2 Horner, Special Anat. Philadelphia, 1836.
3 Haller, Elementa Physiologiæ. Tom. VI., p. 524.
4 Ruysch, Observ. Anat. Chirurg. A specimen of this kind was in the Jena Museum.
5 Huschke, Encyclopædie Anatomique. Vol. V., p. 145.
6 Revue Medicale, 1831, p. 146.
7 Reil's Archiv. Bd. V., p. 144.
8 Phil. Trans. Vol. 46, pp. 92-93.
9 Buttner Anat. Wahrnemungen, p. 121.
10 Richter, Medischinische Chirurg. Bemerkungen. Band I, p. 54.

ON THE QUALIFICATIONS AND DUTIES OF AN OFFICER OF HEALTH.

By H. LETHEBY, M.B., M.A., Ph. D., Etc.,
PROFESSOR OF CHEMISTRY IN THE COLLEGE OF THE LONDON HOSPITAL, AND MEDICAL OFFICER OF HEALTH FOR THE CITY OF LONDON.

(Continued from page 126.)

AGAIN, to the superintendence of the registration of deaths there might be added the duty of informing the coroner of the necessity for an inquest, and even of assisting him in the medico-legal part of his investigations ; for who would be so well acquainted with the circumstances of a

1 Herlin extirpated the Gall-bladder in cats without much inconvenience subsequently.
2 P. Z. S., 1862, p. 138.
3 Cuvier says the cuckoo has no gall-bladder, but one exists, sometimes at least, in cuculus canorus, and Crisp describes its existence in C. glandarius and orientalis.

suspicious death, as the Medical Officer who had the superintendence of the return. At present this duty is performed by an ignorant and irresponsible officer, the parish constable; he it is who makes all the preliminary enquiries which are necessary for the action of the coroner, and it is not too much to say that both the ignorance and interests of this functionary may provoke enquiries which are not needed, and suppress others which are most requisite. In fact the unseemly contests which have been maintained by coroners and magistrates in respect of the expenses of inquests, and the necessity for conducting them, have been caused, in great measure, by the stupidity and officiousness of the parish constable, and by the imperfection of the data on which the coroner has acted. Give him the assistance of an officer who is competent to undertake the preliminary enquiries, and to determine whether there are good grounds for supposing that death has not arisen from natural causes, and the function of the coroner would be far more effectively performed.

The medical officer might likewise assist the coroner in the investigation of the case throughout the whole of the proceedings. He might be present at the post-mortem examination made by the medical attendant; and he might witness, if not conduct, the toxicological part of the enquiry. Such an officer would soon become an experienced adept, whose knowledge would be of infinite value in the administration of justice, and whose independence and public position would place him above the suspicions which now attach to the motives of a professional expert. There can be no doubt that, with the assistance of such an officer, the progress of the coroner's investigation would be more certain, and, the result of his enquiries, the verdict, more conclusive. He would also put a stop to the costly proceedings which too often end as they began with the mere fact of "found dead," nor should we be perplexed with the unmeaning, if not mischievous verdict of died suddenly, died from grief, died of a broken heart, or died by the visitation of God.[1] In fact, the certainty of discovering the cause of death would not only give more precision to the coroner's verdict, but by exposing secret murder, would inspire the criminal with dread and the public with confidence. Inquests would perhaps be less frequently conducted, and thus far their expenses would be saved; but when conducted the enquiry would be needful, and the issue wonld be certain. Already the magistrates of the county of Middlesex have decided that there is occasion for some such an officer to assist the coroner; but I fear they have misapprehended the scope of the appointment, and the duties of the office.[2] The aim of the appointment should be to gain certain information as to the necessity for an inquest, and to give trustworthy assistance to coroner and magistrate in the medico-legal part of the investigation. This can only be done effectually by a trained, a skilful, and an experienced officer like an officer of health, whose collateral duties would help him in the investigation.

Some such a notion has pervaded the minds of all who have carefully considered the subject, and the writings of Mr. Chadwick, Dr. Sutherland, Dr. Southwood Smith, Mr. Rumsey, and many others, abound with illustrations of its necessity and importance. Even the coroners themselves are of opinion that their hands would be greatly strengthened by such an appointment. In fact, there cannot be a doubt that, with the assistance of such an officer, the functions of the coroner would be more effectively performed, the expenses of his office would be considerably reduced, and the results of his inquiries would be conclusive and satisfactory. In this way the aim of justice would be reached, and the safety of the public secured.[1]

And, besides the supervision of the mortality returns and the registration of deaths, the Medical Officers of Health might organise and superintend a registration of sickness. He might gather up and classify the returns of hospitals, workhouses, unions, and dispensaries. He might note the specialities of disease among the different classes of the community, and in the different circumstances of habit, cleanliness, situation, density, &c. He would thus contribute to the ætiology of disease, and to the knowledge, now so meagre, of the laws of sickness. This, indeed, is a branch of sanitary statistics which has yet to be cultivated, for we have little or no accurate information of the rates of sickness at different ages, or of the influence of it upon the efficiency of labour. The mortality returns inform us of the fatal effects of disease, but they give us no idea of its lesser influences. They tell us of the killed in the battle of life, but they say nothing of the wounded and the disabled. It is true that the records of the public service, as the army and navy, the customs, the post-office, and the police, as well as the registration returns of friendly societies, have done something to elucidate the subject; but these data are far from being satisfactory. In the former case they are deduced from a class of individuals altogether exceptional, because they are picked men, at particular ages, and are occupied in a peculiar manner; and in the latter case the returns are indefinite, and careless and unsystematic. Besides which, they neither of them furnish sufficiently distinct information of the habits and home influences of the several classes.

Even in the case of hospital and other such statistics already alluded to, they must be enlarged beyond their present scope before they can be of much service. They must embrace the questions of residence, occupation, and the general habits of the sick, as well as the course and issue of the malady. They must also give evidence of the influence of specialities of practice, and of the tendency in particular institutions to treat particular diseases. It was for want of these considerations that the statistical returns of sickness, published by the Medical Officers of Health for the Metropolis, were abortive, and were so soon brought to a conclusion.[2] It is clear, indeed, that we have yet to establish a sound and comprehensive system of registration of sickness before we can deduce the laws of its occurrence, and the general rate of its distribution, before we shall be able to estimate its influence on labour, and on the effectiveness of the various classes of the community. This is manifestly an important branch of sanitary statistics, for it would form

1 In the year 1838 and 1839 there were about 35,000 inquests held in this country; and of this number, 6708 ended in the verdict of "sudden death." Even in the metropolitan districts, and in the large towns of Liverpool, Manchester, and Birmingham, two out of every three inquests of sudden death were concluded unsatisfactorily, as by such returns as found dead, died by the visitation of God, or died naturally. (Dr. Farr, 3rd Annual Report of Reg.-Gen., p. 91, 92). And more recently in 1856, according to the returns of Mr. Redgrave, there were 10,285 inquests of the 21,801 held in the whole country in which the verdicts were most unsatisfactory. For example, there were 7102 in which the verdict was "natural death" without specifying the cause, and 3183 in which it was "found dead" (19th Annual Report of Reg.-Gen., p. 197.)

2 "*Appointment of a Post-mortem Examiner.*—Upon the third subject of reference, that of the appointment of a medical officer, your Committee have to report a complete unanimity of opinion on the part of the witness who have appeared before them, in favour both of the utility and importance of the measure. With reference, indeed, to this point Mr. Bedford (the Coroner for the city and liberties of Westminster) has not scrupled to express his opinion, that in no case of sudden death, in which an inquest is proper at all, should a post-mortem examination be dispensed with; and that, without it, the proceeding is worse than useless. He considers it to be absolutely useless, because it affords no indication of the slightest value as to the cause of death; and worse than useless, because the show of investigation which is thereby presented, tends to lull suspicion, and, where actual guilt exists, to screen it from detection. But if it is important to have post-mortem examinations at all, it is equally so to provide means for their being efficiently performed. And the object, your Committee believe, cannot be attained except by the employment of practitioners whose attention has been specially directed to this difficult branch of medical science, and who have the benefit of continued practice in it." Report of the Special Committee appointed to consider the duties and remuneration of coroners, and also whether it is desirable that a medical officer should be appointed to the Coroner's Court. Middlesex Quarterly Sessions, 1851.

1 In Germany, the *Kreis-physicus*, a District Physician, has this very duty assigned to him; for it is his business to promote and aid medico-legal inquiries of all kinds. He is to make examinations for inquests, with the co-operation of the District Surgeon, and is to attend on all sudden occurrences dangerous to the public safety.

2 In the month of April, 1857, the Medical Officers of Health of the Metropolis commenced the publication of a weekly return of the cases of illness treated in pauper practice and in the public institutions of London. It embraced, on an average, about 10,000 new cases per week, treated in 43 workhouses, 35 hospitals, 43 dispensaries, 13 asylums, and 5 prisons. The diseases were classified under 22 heads, chiefly zymotic and pulmonary. The returns were continued for one year and seven months, and were then unexpectedly stopped. A similar weekly return has been published for Manchester and Salford.

the basis of a national pathology; it would furnish the means of determining with accuracy the proximate causes of disease, and the influences of climate, season, situation, occupation, and social habits. It would serve, also, to indicate the advent of epidemics, the laws of their occurrence, and the circumstances which keep them in check. So large a consideration evidently demands an effort for its fulfilment, and none are so well able to assist in its realization as the Health Officers of the country.

There is yet another subject connected with this part of his duties which might be advantageously committed to him, it is that of advising the poor, in the time of death, how best they may dispose of the corpse. Hardly anything is so perplexing to them, and so trying to their feelings, as the taking care of the dead body until it can be buried. Having generally but one room in which they lodge and sleep, they are obliged to keep their dead among them until they can find the means and the opportunity for burial. There it putrifies, and taints the air, and too often spreads disease among the living. At such times the Officer of Health, whose mission is respected by the poor, might advise and even assist in the disposal of the corpse, by either recommending the use of disinfectants, or the removal of the body to a convenient place where it would be safely kept and respectfully treated. Service like this would not only be useful to the individuals, whom it most immediately concerned, but it would also be useful to the public by preventing the spread of disease; for in times of pestilence, or when infectious disease has been the cause of death, measures might be taken to prevent its propagation.

Again, the functions of the Medical Officer of Health might very properly embrace the examination of articles of food and drink. Already this duty is assigned to him in several of the districts of this metropolis, as in the City of London, in the parish of St. James, in that of Marylebone, Islington, and some others; but instead of waiting, as the Act directs, for a complaint on the part of a purchaser of food or drink, he should be empowered to make a systematic examination of the things sold in his district. This would be the means of exposing fraud, and of protecting the public, especially the poor, from the mischiefs of adulteration—mischiefs which are far more serious to health, and to the vigour of the body, than they are to the ethics of trade.

Lastly, and above all, it should be remembered, as Parent-du-Chatelet has truly observed, that the duties of an Officer of Health should include the esteem of the public, for his functions do not merely relate to the salubrity of a district, or to the question of the healthiness or unhealthiness of any trade, or building—these are but the material parts of his mission—they must also relate to the good opinion of those among whom he labours, and be supported by his moral action. There are many occasions, especially those of secondary importance, which occur most frequently, when an officer of health acts as an intermediate agent between the public and the administration, when his functions are those of a conciliator, when he has to listen to complaints of grievances on one side, and angry recriminations on the other. Judging, however, solely of the question of public safety and public health, and disregarding, or calming down the animosities with which the complaints are too often beset, he should endeavour to decide in such wise as to satisfy the demands of the administration, as well as the reasonable objections of opponents. His advice, indeed, should be such as will not only meet the requirements of the case, but will also gain the assent of every good citizen. Above all, he should ever oppose himself to all vexatious and litiguous proceedings, to all unfounded misapprehensions, and to all exaggerated views of public sanitary questions; for nothing is more likely to impede the progress of knowledge, and to bring the functions of his office into disrepute, than the unchecked fancies of visionary alarmists, or the still more mischievous opinions of sensational agitators.

Hospital Report.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF TRAUMATIC ANEURISM SUCCESSFULLY TREATED BY PRESSURE.

Under the care of Mr. HOLMES COOTE.

It is not often that we have the opportunity of recording cases of aneurism successfully treated by pressure in the London hospitals, and we therefore have much pleasure in furnishing our readers with the details of a case that has recently caused a good deal of interest among the frequenters of the wards of St. Bartholomew's. The case is of the more importance, since it is obvious that its nature was overlooked at another hospital, where the patient had previously applied. We may add that, in going his rounds, Mr. Holmes Coote, under whose care the patient has been cured, remarked once or twice to the gentlemen who accompanied him that probably some of the failures in London arose from too great pressure being applied. He believed that it was quite unnecessary to completely arrest the circulation, as some seemed to attempt, a very slight contraction being sufficient to cause the formation of a clot. He considered that the Dublin Surgeons had been so successful from their careful discrimination of the amount of pressure required, and their steady adherence to this the chief point in the treatment.

The following are the particulars of the case that leads to these remarks:—

George B., æt. 42, was admitted into St. Bartholomew's Hospital, July 19. He said that while at work four weeks ago he let fall a needle about three inches long, transversely between the thighs, and instinctively closing the limbs, he ran the point into the right member, over the situation of the femoral artery. Profuse hæmorrhage immediately ensued, which continued, in spite of bandages, until he became faint. He gave up work, and went home to bed. The bleeding, however, recurred, and soaked through handkerchiefs and bedding; but after a time it again stopped. He could not estimate the amount of blood lost, but thought it was over one pint. The next day he applied to another hospital, where he received dressings, and was told to attend as an out-patient. The bleeding did not return, and after three weeks he was discharged.

The limb, however, at this time, was in a very unsatisfactory state. It was much discoloured at the seat of injury; it was weak, cold, and numb, and there was great pain when he attempted to use it, especially in the ham. The measurement was five inches more than that of the sound limb—namely, 21 inches, to 16 inches sound limb; and there was a longitudinal pulsating tumour occupying about four inches of the inner part of the thigh. The punctured wound was closed.

The treatment by pressure was determined on by Mr. Coote, who applied the proper apparatus July 27th.

August 3rd.—The pulsation has entirely ceased; the tumour is a firm mass; the limb is not more than one and a-half inch larger in circumferential measurement than the other; all pain has subsided, and the patient, a very intelligent man, says that he feels he could use the limb as well as before.

Measurement.—Right limb, 17½ inches; left limb, 16 inches.

5th.—The pad was removed for a time from the artery to-day; no pulsation returned in the swelling.

The report of the Medical Officer of Health for the City of London for the June quarter has just been presented to the Commissioners of Sewers. The amount of diseased meat condemned of late has been much above the average, 47,467 lbs. during the quarter. 6547 houses were inspected, and 1528 improved. At Billingsgate 139,445 fish, 75 bushels of perriwinkles, and 2859 gallons of Shrimps were condemned as putrid.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 14, 1867.

THE BRITISH MEDICAL ASSOCIATION.

THE warm grasp of the hand, the hearty Irish *cead mille failthe*, and the generous hospitality with which the Profession in Ireland has met her Saxon brotherhood, will linger in remembrance long after the blue hills of Wicklow have been left behind, and the rich melody of the Irish speech has been forgotten. The gathering of the British Medical Association, its scientific fruits made richer by the noble struggle for superiority between the great schools of England, Ireland, and Scotland, has achieved greater results in the narrowing of the separation between classes, and in the levelling of the barriers set up by ignorance and prejudice between the Englishmen and their Irish colleagues. For the first time the opportunity has occurred for the Medical men of England to acquire that experience of their Irish brethren which is essential to the sympathy which ought to exist, and the want of which has hitherto impeded the unity of the Profession, and we trust we are not too sanguine in our hope, that the favourable impressions which have been derived from the interchange of the *entente cordiale*, may permeate far and wide through the ranks of the Profession, and may lead to a more thorough appreciation and a higher respect for the Profession in Ireland. It is true that the Irish School of Medicine and Surgery has always received a willing recognition from the Profession throughout the world, and has occupied a scientific rank which, in this Congress, it has worthily maintained, but the social *status* of its Members, those qualities which could only be developed by the bonds of personal friendship, have been too long unknown, and we anticipate that the information which a majority of the British Medical Association carried with them, that the Profession in Ireland, whether in scientific acquirements, in the rank which its Members occupy, or in the social qualities which they possess, occupies a position second to none, cannot fail to secure for Irish Medical men a consideration which they can claim nowhere so well as on their own ground.

It is in the social direction that most importance attaches to the late assembly, for it must be confessed that the scientific results have been rather disappointing. Addresses from the lips, and spoken with the authority of such men as CORRIGAN, STOKES, and RUMSEY, are, in themselves, worthy in the highest degree of such an occasion, and, of itself, the eloquent and learned speech of Professor SMITH, stamped the meeting with a high scientific character, but dissertations on abstract subjects can hardly redeem the purely Professional transactions from the want of originality which pervaded them. With the exception of a very few communications, and notably of those in the physiological section, the papers read were neither very novel nor very interesting, and many of them were little else than the repetition of facts and opinions, with which the Profession has been already made acquainted through the public prints. We trust that the future efforts of the Association may be productive of better things, and that we may yet see its assembly marked by such a burst of original and scientific contributions as has always marked the meetings of the British Association for the advancement of science. The Congress of the Association is surely worthy of a better object than the public repetition of experiences and opinions, which every literary Surgeon or Physician has not only in his remembrance, but on his book-shelves.

THE ENGLISH REGISTRAR-GENERAL'S QUARTERLY REPORT.

IN these days, when vital statistics are studied by large numbers of the population, we shall, of course, be expected to select for the convenience of our readers, a few of the facts with which the Quarterly Report of the Registrar-General, just issued, literally teems. In the three months of April, May, and June, the health and well-being of the people was considerably above the average, affording ground for renewed thankfulness and confidence. The birth-rate of the quarter is the highest on record for this portion of the year, while the death-rate is below the average of the season, and, in fact, furnishes the lowest rate for this quarter during the last ten years. The exact number was only 21 in the 1000, as against 24 for the same season last year, or 22 as the average figure.

The natural increase of the people of England was at the rate of 957 daily, being a total of 87,126 for the quarter, the number of births having been 199,649; the deaths only 112,523. There is, however, a slight deduction to be made from the increase on account of emigration, since 16,718 persons left England during the quarter. Taking this into

account, the nearly 1000 per day (in round numbers) added to the population is reduced to 750. Even this figure is, we apprehend, sufficient to inspire more than confidence. We have learned to look upon every addition to our population as a sure sign of increasing strength and prosperity. No one now dreams of feeding the starving by reducing the number to be fed, but every such report as this is at once pronounced most gratifying.

The Medical Profession has peculiar reason to congratulate itself on the result, when it is remembered that a very perceptible proportion is due to its untiring efforts for the good of the people. It is a fact that the favourable state of the public health is, to a large extent, due to the great sanitary improvements that have been accomplished upon the earnest persuasions of the Medical Profession. This is particularly exemplified in the fact that the most marked decrease of mortality has been seen in those districts in which the greatest sanitary precautions have been adopted. In the town districts, comprising a population of eleven millions, the improvement of the quarter represents the saving of 33,000 lives per annum—supposing that we should be able to prevent any deterioration, and our sanitarians are all hopeful of further ameliorations.

Here, then, we are already reaping the reward of our labours, and—we urge the fact upon all reluctant local authorities—that reward is in exact proportion to the labour and expenditure incurred. In districts where able and zealous medical advisers have had free play, the mortality has greatly decreased, but where obstinate and ignorant local boards and vestries have refused to move, the penalty has been rigorously exacted. London and Birmingham have reduced their mortality to the annual rate of 20 per thousand, in spite of the disadvantages said to attach to large cities. Edinburgh and Glasgow exhibit the high rate of 29, although each of these northern cities possess peculiar advantages. Why should such a discrepancy exist? The same lesson is to be learned by every township in the kingdom, and we trust the constituted guardians of each will study with care and impartiality this important report.

One point to which the Registral-General adverts, may detain us a moment longer. He points out that the plague, which is now raging in the East, has been banished from these islands. We may add, that in no country has so much control been obtained over epidemic cholera. This scourge, so much dreaded on every hand, can only be restrained by the most vigorous application of the principles of sanitary science, and seeing that we are by no means safe from an early recurrence of the disease, we trust the many warnings that have been uttered, will no longer be neglected.

Up to this point we have made no mention of the marriage-rate. This omission is intentional, not because the figures are less encouraging, which, perhaps, may be conceded, but because the marriage returns are not made up to the same date. The returns of marriages now issued are, in fact, those that were solemnized in the winter quarter, and they cannot therefore be fairly included in a picture of the spring. The real state of the marriage return will be shown when the next quarter's report of births and deaths is ready. Considering the importance attached by the public to the marriage-rate, we feel called upon to point out this fact, and to express our surprise that hitherto no attempt has been made to comprise all the statistics of the period in each report.

THE MENTAL CONDITION OF THE LATE MRS. THWAYTES.

(SMITH AND OTHERS *v.* TEBBITH AND OTHERS.)

JUDGMENT was pronounced on the 6th instant, in this important cause. In the Court of Probate, Sir James Wilde delivered a lucid and able judgment, which it is impossible to analyse in the space of a leading article. We may, however, sum up a few of the incidents of the trial, and so clear the way for a consideration of such special points as are likely to become precedents, or are deserving of full discussion.

The late Mrs. Thwaytes, resided in Hyde-park Gardens, and possessed a country house near Worthing. Having inherited large property from her deceased husband, she made a will in favour of Dr. Smith, and Mr. Samuel Smith, to the complete exclusion of her blood relations. The will was opposed by a sister, and two of her sister's children, on the grounds of incapacity and undue influence. The will in dispute disposed of property to the extent of £400,000. No one need therefore be surprised that the trial was prolonged and costly. It was argued on the one side that Mrs. Thwaytes was for upwards of thirty-years a complete monomaniac; on the other, that she was rational enough to exercise ordinary prudence in worldly matters Some went so far as to speak of her monomania as akin to the religious fervour and beliefs of such minds as that of Luther or Bunyan. How far such a notion could be entertained, may be judged of by the following statement. which, for the sake of impartiality, we take from Sir J. Wilde's judgment :—

"She had said to different witnesses 'that she had inter course with the Creator, that she was the Holy Ghost, the third person in the Trinity, and Mr. Simm Smith was the Father; that she was above God seven degrees; that she sent the cholera or the influenza through all creation, and that it had to go through her first; that the brutes had been attempting to poison her; that one stage of her work was blindness; that she had gone through the new birth, every bone and sinew and drop of blood had been made new; that if the Almighty lost her everything would go to chaos; that she was about to bring forth the Saviour of the World; that the Tebbitt family were doomed to everlasting perdition; that she held direct communication with the Father; that the judgment of the world was to take place in her drawing-room in Hyde-park; that Dr. Smith knew everything she did; that she was the first great cause and the pivot on which the whole world hung; that

at one stage of the work the Doctor required large sums to carry it on; that it seemed foolish for her to make a will, as she was immortal, but she must act in nature; that she had a headdress of hair and a coronal of diamonds made expressly for the Judgment Day; that Mrs. Curtis was a child of God, and was obliged to fall on her knees and worship her, for she knew she was the Holy Ghost; that when the work was finished they would have Buckingham Palace and Windsor Castle; that she and the Doctor made the thunder and lightning, and were in their glory in a good thunderstorm; that they were the Supreme Beings, and communicated together, though they were absent from one another; and that the judgment was to take place in her drawing-room, and she was to take part in it with the Lord Jesus Christ in connection with Dr. Smith.'"

Now, how any rational person can conscientiously confound such a jumble of sacred and paltry things as this with the deep enthusiasm or belief in evil spirits of such minds as Bunyan and Luther, is almost beyond comprehension, and we look upon the question—were Luther and Bunyan mad?—in regard to such a case as this, as a species of trifling unworthy of the merest tyro in sensational paragraph-writing. We do not forget, indeed, the extreme difficulty of conveying to those who have never thought upon such subjects, any clear and definite ideas of insanity; nor are we unaware that, according to the definitions that some authorities have proposed, it might be easy for one-half of the world to pronounce the other half mad. But even the most thoughtless members of society would at once distinguish between the so-called madness of such a genius as Bunyan, with its full noon-tide of mental life, and the midnight darkness of such a state of mind as that portrayed in the passage we have cited. We are, of course, Presuming that the evidence as to this condition is worthy of credit, and in doing so we are only accepting the conclusion of the Court. This may be a point for further consideration, though it can in no way affect the present argument, or rather protest against the confusion of things sacred and trivial. Very aptly on this point did Sir James Wilde cite the words of Burke, to the effect that "though no one can say where twilight begins or ends, there is ample distinction between day and night."

A subject of the greatest moment is the peculiar relations of Mrs. Thwaytes to Dr. Smyth. He seems to have first become acquainted with her in a professional capacity, having attended her in what he calls a low fever, marked by nervous excitement. Her delusions seem to date from that period. She gave him an annuity of £2000, besides various sums of money, in the whole about £50,000; but so far as we gather, no clear explanation of the purposes for which this money was given has been offered. Dr. Smith visited his patient regularly, and he received her dividends for her and paid them into the bankers. He states that she never spoke to him of any spiritual work in which they were jointly engaged, though to other persons she seems constantly to have done so. Taking this part of the evidence together, we confess that the case is most peculiar, and we cannot feel surprised that the Court pronounced the testatrix of unsound mind, and therefore set aside the will. Apart from the doctrine that any persistent monomaniac is sufficient to prove testamentary incapacity (a doctrine, by-the-bye, which we question whether our courts will uniformly maintain, notwithstanding this judgment, and which we should certainly like to see further sifted), the delusions in this case were so obviously likely to influence the will in Dr. Smith's favour, that it was by no means unlikely to be set aside. We should have been glad to devote a few paragraphs to the relations between physicians and patients, as exemplified in the case, but space at present forbids, and such lessons as may be learned from it are by no means deeply hidden.

To those readers who may be interested in the question, we commend the whole judgment of Sir. J. Wilde as meriting an attentive study.

THE HEALTH OF LONDON.
INCREASE OF DIARRHŒA.

In our last week's article on the public health we were compelled to draw attention to the rapid increase of diarrhœa in London, as shown by the Registrar-General's report. This week we have to announce, on the same authority, a still further increase of this disease. It is, indeed, to be admitted that, at this season of the year, such an increase is no unusual occurrence; yet, considering the apprehensions that may naturally be entertained as to a reappearance of cholera, and the numerous isolated facts that we are continually called upon to chronicle respecting the existence of that disease in an epidemic form in various parts of the globe, it is a fact to which we are desirous of drawing the attention of the Profession, as one that may eventually prove of greater consequence than is at the moment commonly believed.

The number of deaths from diarrhœa registered in London during the last seven weeks have been as follows:—16, 48, 54, 115, 170, 196, and 217. Of the 217 deaths last week, only eight were those of adults, 209 being those of children—a sufficient proof of the nature of the affection. In addition to these 217 deaths, there were recorded during the week 19 deaths from cholera or choleraic diarrhœa, of which 17 were those of children, and only 2 those of adults. These figures still further confirm those mentioned above as to the nature of the disease so fatal to young lives. By way of contrast, we mention that in the corresponding week of last year the deaths from cholera were 1053, and from diarrhœa 354. As a still further fact pointing to similar conclusions, it should be mentioned that the deaths were last week distributed pretty equally throughout the several districts of the metropolis.

Now, we cannot but feel that statistics of this kind should give rise to serious reflection on the part of our Profession. It is to us that the great public must look for direction and assistance, and it should be our care to offer timely caution. There is possibly a tendency to regard diarrhœa as of too little moment. In spite of all the connection that has repeatedly been urged between diarrhœa and cholera, it may well be that their various relations have not yet been studied as fully as they deserve.

While every variety of treatment has been tried in both diseases, the Profession, as a whole, seems to have adopted no conclusion unless the rough-and-ready one that diarrhœa is mostly amenable to our art, while cholera is not. But if this be so, why this excessive and continually recurring loss of life from the curable disease?—a loss, on the whole, greater than that of the more intractable malady. Can it be that, with all our conflicting methods of treatment, we have not hitherto learned to hold in check as completely as we might the milder disease? or the preliminary stages of the more fatal one? Questions of this kind are most wholesome, but it is very difficult to enter into them without some reference

to therapeutic methods, and we are particularly desirous of avoiding in our leading columns the advocacy of any one in preference to others. It will be necessary, however, to allude at times to the majority. Last year, under the title of "Theories of Cholera," we published some articles of this kind, and propose to continue them from time to time. On this occasion we shall couclude by the mention of a method of treating disease which has been fully explained by its proposer in this Journal—more especially in reference to diseases of the nervous system, but which he believes peculiarly efficacious in both cholera and diarrhœa. We allude to the application of heat and cold to the spine, by which Dr. Chapman thinks he has discovered a mode of arresting many morbid actions, including those in which intestinal flux is so prominent a symptom. In perusing his work on Cholera, we have found at pp. 244-5 a passage so apposite to the questions we have propounded above, that we shall conclude this article by citing it—for it contains not only the reply of an able observer to some of our questions, but, in a brief compass, a statement of the author's conclusions, and an account of the manner in which he would desire other experimenters to proceed in the attempt to confirm or invalidate his theory. He says :—

"I strongly recommend those physicians who are disposed to avail themselves of the remedial power of cold and heat applied along the spine in the treatment of bowel affections to make a beginning with cases of diarrhœa and cholerine. As these phases of cholera are much less formidable than actual collapse, they can be treated more at leisure and with less anxiety as to the result than is possible in cases of collapse; hence more opportunity is afforded for calmly observing and studying the effects of the treatment; and as the patients in these early stages are less restless and exert more control over themselves, they are more likely, without the aid of an ice-bag jacket to keep the ice exactly along the centre of the spine, and thus to give it the best chance of exerting its utmost beneficial influence. Moreover, in the majority of such cases the need for the application of heat to the general surface of the body while ice is being applied to the spine is much less urgent, as hot-water bottles to the feet only will often suffice. Therefore in these the effects produced can be almost exclusively ascribed to the spinal ice-bag as their cause, and the most exact conceptions can be formed of its therapeutical value. Such patients have not yet become seriously anxious or alarmed about themselves, and retain nearly all their mental vigour and self-possession; their power of observation and description being comparatively unimpaired, they can give an exact account of their symptoms before anything is done, and of their experience from hour to hour of the effects of the ice on each segment of the body after the treatment is begun, and while it is continued. In this way it may be accurately studied, and he who thus really acquaints himself with it will find himself most fitly prepared to treat the disease in its most formidable aspect of collapse. The wise precept, 'Proceed from the simple to the complex,' or the more homely saying, 'First walk, and then run,' is just as applicable here as it is in every part of life ; and I may observe here, that the determination to test the efficacy of the treatment in question in the worst cases first has not been most conducive to a speedy, as well as correct appreciation of its value. The number of fatal cases of diarrhœa in London during the passing summer has been very large, and the returns of each week still show that about a third of all the persons who are destroyed by diarrhœa and cholera conjointly, die of diarrhœa, notwithstanding the asserted power of medicine to subdue this disease. Surely if, as I assert, the spinal ice-bag is a greater power, it would be worth while to try if it would not save these lives. But, indeed, diarrhœa does not seem to arrest the attention and excite the interest of even the medical profession to an extent proportionate to its destructiveness. The weekly average mortality of London may be increased by the death of a hundred persons by diarrhœa without causing any interest or surprise ; but if it be increased by only fifty deaths from cholera, serious apprehension is felt, and the public journals resound with alarm. There may be, and I dare say there is, adequate reason for this ; but that diarrhœa is, comparatively, a neglected disease, and that its great dangerousness and fatality are not duly borne in mind are facts which can scarcely admit of dispute.

"I do not hesitate to affirm that the evidence and arguments contained in this volume justify the conclusion, that by the intelligent and judicious use of the spinal ice-bag, death may be averted in every case of infantile diarrhœa, summer diarrhœa, cholerine, and the early stages of so-called Asiatic cholera ; and that were each soldier in India compelled to apply one bag of ice along the lower half of the spine until the ice has melted during those days when he is marching, we should hear no more of the extraordinary phenomenon of the especially great mortality of soldiers in India when moving from one encampment to another."

Notes on Current Topics.

THE SALE OF FOREIGN DIPLOMAS.

We recommend the statement on this subject made by Sir Dominic Corrigan, in his address to the British Medical Association, the accuracy of which we are in a position to prove, to the notice of the Hon. Mr. Walpole, and we venture to enquire whether, in that gentleman's opinion, the clause which he endeavoured to force into the Medical Amendments Bill, putting the legality to such practices at the discretion of a Secretary of State, would, in the face of such a condition of things, be a wise provision.

Sir Dominic Corrigan says :—

"It is notorious that both in Germany and America there are universities that sell their diplomas just as they sell beer or Indian corn to all who can afford to pay for them. I have received other evidence since. A gentleman connected with the medical and literary press of London has placed a document in my hands, in which he certifies that an American agent called on him this present year with diplomas duly signed and sealed by one of the American colleges, nine or ten years old ; he could have a supply fifteen years old if required. He had a variety in stock, price £20, and would allow a discount off, as it was a matter of business. This gentleman is quite ready at any time to verify the memorandum and to give his name. I have within the last week received letters from two members of the Profession, one of them a president of one of our Branch Associations, in which he encloses to me a communication from an agent in Glasgow, in reply to a commution for the purchase of a foreign diploma ; and I am sorry to say an M.D. of one of our universities. The letter is so characteristic that I shall make no apology for reading it at length:—

"Ewing-place, Glasgow, 24th July, 1867.

"Dear Sir—After having had the pleasure of your note of the 6th instant, I write you in direct course. I stated in terms of my said letter that no university but that of the State of Pennsylvania gave degrees of 'Medical Doctor *in absentia*,' the cost being £32 12s., and in full of all demands and delivered free. I also stated in terms of my said note that the university of Giepen, of Hesse-Darmstadt, gave degrees of M.D. for £22 paid there, and £15 10s. paid here, and also in full of all demands. In either case I will cheerfully assist you or your friend in obtaining the object in view. As I have four new degrees to get at Pennsylvania next week, and other four at Giepen also, please send me £32 12s. for the Pennsylvania degree, or £15 10s. in part of the Giepen degree, and I will send all the requisites to you in course.—I am, my dear sir, truly yours, "————, M.D.

"To give this epistle due dignity there is inscribed on the envelope 'On her Majesty's service.' It is scarcely necessary to observe that I have in my possession the documents and the names."

We may add, as a corrollary to these facts, and we do so without fear of contradiction, that, in respect to some of the licensing bodies of Great Britain, the traffic in diplomas between avaricious and unscrupulous corporations and debased and ignorant medical traders is not very much better than in Giepen or Pennsylvania.

LONDON SICK POOR.

In the parish of St. Pancras the guardians contemplate making considerable changes in their present mode of relieving the sick poor. An efficient matron is to take charge of the workhouse infirmary, connected with which there is to be a separate kitchen. There are to be three medical officers, one for the infirmary, and one each for the men and women patients. Four districts will be appointed and a dispensary established in each, so that there may be no delay in furnishing relief to those who apply.

PROTECTION OF ANIMALS.

It seems a settled principle in our advancing civilization, that dumb animals, which are so essential in our service, should have a portion of our regard, and be as much as possible preserved from unnecessary suffering. Common sense and ordinary feeling would suggest this, and keep any man, one would think, from inflicting unnecessary cruelty on the brute creation. Unfortunately such is not the case, and there is constant need for watchfulness on the part of the Society for the Protection of Animals. This institution has now become international, and the Congress has held its meeting in Paris this year. There were delegates from various places on the Continent, even New York had its representative, and London sent six. Reports were read, and the following questions discussed :— 1st. What amelioration may be made in the mode of transporting animals by railway. 2nd. The best means of slaughtering animals. 3rd. The best means of harnessing oxen ; and 4th, the best means of ameliorating the condition of horses employed in the drawing of omnibuses, cabs, and other public conveyances.

YELLOW FEVER IN MAURITIUS.

In reply to a question in the House of Commons, Mr. Adderley communicated such information on this epidemic as was in possession of the Colonial-office. He said that his last advices were dated May 20, and received July 25. Up to the date named, 7000 persons had perished in Fort Louis and the places adjoining. The governor had instituted enquiries. The General Board of Health "were still considering the subject." How characteristic ! The Colonial Office intended to send out other persons to assist in the enquiry. Should this intention be carried out, the whole affair will, no doubt, be thoroughly sifted, for, of course, the Colonial Office will only send out the most suitable medical man to undertake such a commission.

OFFICERS OF HEALTH.

Our last issue contained the first part of a valuable communication by Dr. Letheby on the "Qualifications and Duties of an Officer of Health." The paper is, in substance, the same as the one read by its distinguished author before the Public Health Section of the National Association for the Promotion of Social Science at the well-remembered meeting in the City of London in 1862. Only very short abstracts have, however, been published in any journal, and even the Transactions of the Association contain but a brief outline. The great and growing importance of the subject, and the fact that by no one has it been thus treated, are sufficient reasons for calling attention to this paper ; while the name of Dr. Letheby is a guarantee for the intrinsic merit of the production. We owe Dr. Letheby our best thanks, that in the midst of his numerous pressing public engagements, he has kindly acceded to our request, and afforded us the means of placing before our readers a detailed account of a subject upon which, in all its branches, he is acknowledged to be a master.

"THE BROADWAY."

We have been favoured by an early copy of the new magazine about to be issued by Messrs. Routledge, and are pleased to find it in every respect equal to promise. The peculiar feature of this new venture—its somewhat international character—will not fail to obtain for it support among the lovers of this class of literature. There are some excellent remarks on criticism, which we should be glad to extract did space permit. We shall be willing, from time to time, to include such passages of its articles as we deem interesting to our readers, amongst our "Gleanings"—a department we have lately instituted. In the meantime, by way of courtesy, and as an introduction to the new comer, we give here the opening paragraph of one of the chapters, selected on account of its brevity :— "'Births, Marriages, and Deaths,' is a common enough heading in all newspapers ; surely it should be Marriages, Births, and Deaths, for man is born to die—that is a natural consequence ; and people are married that others should be born ; therefore, as marriage, in the true relation of things, should always precede birth—being, it is said, made in heaven—so love should ever precede marriage. And thus we shortly reason out the second line of Emerson's quatrain from 'Casella,'

"'Test of the poet is knowledge of love,
For Eros is older than Saturn or Jove.'"

A WHOLE LOAF.

No kind of swindling has been more generally practised than that of giving short weight. The bakers have long practised the art of selling loaves under the professed weight. In fact, a loaf of full weight has long been almost unknown. We are glad to hear that the police have determined to put an end to this imposition. Whatever the outcry raised, and already it has been loud enough, the movement once set agoing is not likely to stop, and, ultimately, bakers will have to acknowledge that short weight, under any circumstances, is really a fraud.

THE CASE OF EDWARD GREENLAND.

A good deal of comment has been excited by the pardon of this man, who was the manager of the Leeds Banking Company, and had been sentenced to a term of imprisonment. It is alleged that a free pardon was given on the ground that his life and reason were in danger from the confinement. The surgeon of the prison did not deem it his duty to have Greenland removed to hospital, and his official report on the case concludes as follows:—

"Under these circumstances he was placed under careful supervision, and precautions were taken during the cold weather against a return of these affections. In consequence his health at first appeared to improve, the only evidence of declining health being a gradual though steady loss of weight, amounting now to 12 pounds, a point of considerable importance in the case of a man 72 years of age. Since he has been placed in closer confinement he has become more depressed in spirits, and his mind less able to bear up under the influence of his late reverses and present imprisonment."

It certainly seems to us that this is a very mild reason

for diminishing a sentence of fifteen months' imprisonment, and remembering that twenty-five of the shareholders of the bank have died prematurely from distress of mind or suicide, and others have lost their reason, we think the public will be inclined to question the propriety of the leniency shown.

CHOLERA IN ITALY.

We have advices from several parts of Italy which seem to indicate that the epidemic is spreading over the Peninsula. Private letters that have reached us from Piedmont speak of a number of fresh towns being invaded. In Rome and some parts of Tuscany it is known to linger; while further south its ravages are very terrible. The Neapolitan provinces, Sicily, and other parts, are suffering considerably. The daily papers have published letters from Malta. The worst feature in Southern Italy is the ignorance of the people, who attribute the disease to poison, and in the most benighted districts are ready to assassinate the authorities, and even the medical men, who they think are in league to destroy them. Tales of this kind are common enough about Messina and Catania. They represent but too faithfully the gross ignorance that prevails in these districts. Nor can we refuse to credit the statement that medical men have feared to go to the relief of some parts, because they know too well the superstition of the peasantry, and were assured that they would only be attacked, and perhaps murdered for their reward.

GREENWICH HOSPITAL.

The waste which attends this noble national institution has again been exposed in the House of Commons. The enumeration of some of the items of expense is more than ridiculous. Fancy eighteen policemen at a cost of £1280 being required to look after 370 old pensioners and 800 school boys. Still more absurd is the whole array of comptrollers, governors, lieutenants, and sub-lieutenants. From what transpired in the debate, it would seem that, with a free choice, no pensioners would remain in the house but the really bed-ridden, they would be easily provided for at Haslar Hospital. The fact seems, then, that we are keeping up the system for the sake of giving away snug births to the tune of £30,000 or £40,000 a year. With the claims of men who have really served their country let us be just, however heavily taxation may press. But if we are to be generous at all, let it be towards them, not to an army of placemen, whose only duty would seem to be to absorb money that would be better expended in other ways.

The relative value of Queen Mary's and Queen Anne's quarters at Greenwich Hospital has also been subject of debate in the House. We have so fully given the arguments on each side on several occasions, that there can be no need to repeat them. We find, however, that the greatest amount of testimony has gone against the Dreadnought authorities, and as they were formerly willing to submit the point to arbitration, we are rather surprised at their repudiating that mode of decision when it was pronounced.

We cannot but feel flattered that the notion of establishing a medical college at Greenwich Hospital, first broached in this journal, has been introduced to the House of Commons. It is plain that abundant opportunity exists of creating a fine hospital, with a complete medical school, at which special training for the navy could be efficiently carried out. Why should not a naval medical school rival that of the sister service?

THE BALANCE SHEET OF THE BRITISH MEDICAL ASSOCIATION.

The financial statement submitted by the Council at the First General Meeting, although it passed without comment, revealed a condition of the funds which would have afforded the best argument in favour of the recent changes in the administration of the journal. The results of last year's management are represented by the figures as singularly unfortunate, for the Association started with £318 in hands and closed its books with a debt of £503; in other words there was a dead loss of £821 on the year's operations. On going into the detail of the account the cause of this disastrous result is evident in the fact that the advertisement income, from advertisements and sales, amounted only to £435, deducting the canvasser's commission from the gross income of £582. As the income from the subscriptions to any journal seldom does more than pay the printing expenses, and did not do so in the present instance, it is easy to understand that such a small advertisement income should have been quite inadequate to meet the expenditure of the large staff maintained by the Association. The next balance sheet will, it is to be hoped, show a more satisfactory result of the new management.

VACCINATION FROM THE COW.

The discussion so vigorously maintained in the Academy of Medicine of Paris as to the transmission of syphilis by vaccination from impure sources of lymph has resulted in a movement, which has been now largely adopted in Paris, for vaccination directly from the cow. M. Depaul has presented to the Academy a report of 611 such vaccinations, the results of which have been eminently satisfactory. The feverish symptoms supervening on the operation from the cow are sharper, and the pustules larger than in vaccination from the human subject, but not to an extent to cause any serious inconvenience, while the proportion of successful cases was 61·82 per cent. from the cow, and 60·53 from the human subject.

THE REPORT ON HYPODERMIC INJECTION.

The Committee of the Royal Medical and Chirurgical Society, have presented their report on this subject. The result of their investigations is not very conclusive although they have experimented with a great variety of agents—Aconitine, Morphine, Atrophine, Strychnine, Quinnæ Conia, Podophyllin, Iodide of Potassium, Battley's Sedative, Prussic Acid, Colocynth, Aloes, and the Calabar Bean. The decisions they arrive at are as follows:—

1. That, as a general rule, only clear neutral solutions of drugs should be injected, for such solutions rarely produce local irritation. 2. That whether drugs be injected under the skin, or administered by the mouth or rectum, their chief physiological and therapeutical effects are the same in kind, though varying in degree. 3. But that symptoms are observed to follow the subcutaneous injection of some drugs which are absent when they are administered by the other methods, and, on the other hand, certain unpleasant symptoms which are apt to follow the introduction of the drugs by the mouth and rectum are not usually experienced when such drugs are injected under the skin. 4. That, as a general rule, to which, however, there may be exceptions, clear neutral solutions of drugs introduced subcutaneously are more rapidly absorbed and more intense in their effects than when introduced by the rectum or the mouth.

5. That no difference has been observed in the effects of a drug subcutaneously injected, whether it be introduced near to, or at a distance from, the part affected. 6. That the advantages to be derived from this method of introducing drugs are—(*a*) rapidity of action; (*b*) intensity of effect; (*c*) economy of material; (*d*) certainty of action; (*e*) facility of introduction in certain cases; (*f*) with some drugs the avoidance of unpleasant symptoms. This plan, therefore, is most likely to be adopted where very rapid and decided effects are required from drugs which are operative in small doses.

THE THIRTY-FIFTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, IN DUBLIN.

The proceedings which commenced on Tuesday, August 6, within the buildings of Trinity College were well attended, and both the retiring President, Dr. Waters of Chester, and the President-elect, Dr. Stokes, received quite an ovation from the large body of the profession assembled to hear their addresses, both of which appeared *in extenso* in our third edition last week. Dr. Waters was appointed permanent Vice-President, on the motion of Dr. Paget, who passed a very high eulogium on the invariable ability, courtesy, and hospitality displayed by that gentleman during the time he had been connected with the Association. Dr. Waters having thanked the meeting for the honour they had conferred upon him,

THE REPORT.

Mr. Watkin Williams, the Secretary, proceeded to read the annual report. One of the clauses, and the only one which produced discussion, being—

"That eight members, to be elected by the registered members of the profession, be added to the 'Medical Council,' four for England and two each for Ireland and Scotland, and that the election be by voting papers distributed and collected by the registrars of the Medical Council in the respective countries."

Sir Dominic Corrigan moved the adoption of the report. It was so plain that it required from him no explanation, and he thought he might say it required no defence. Therefore, without further observation, he would move the adoption of the report.

Dr. Radcliffe Hall seconded the motion.

Dr. Stewart wished to use the strongest arguments he could against the proposed increase in the number of representatives to the Medical Council. The number—twenty-four—was already quite large enough, and the expense attending it sufficiently heavy for the profession to bear. How the additional expense was to be met, he did not pretend to know. If more were added to the committee, he was of opinion that it would be positively more unworkable than at present, and therefore he strongly objected to the proposal; but he thought they could get representation—substantial representation—in the Medical Council without adding more members. He would therefore move the following amendment:—

"That this meeting, while deeply impressed with the propriety and justice of direct and substantial representation of the general body of the profession in the Medical Council, considers it highly inexpedient that the number of the Medical Council should be increased."

Dr. Markham, in seconding the amendment, said, if that report was carried, he believed the Association would be binding itself to an impracticability. In fact, the proposal would lead to an impossibility of the proper management of business. The arguments upon which the proposal to add eight members to the Medical Council was grounded, he confessed he was unacquainted with. He should say that his opinion was diametrically opposed to the statement that the profession was not well represented in the Medical Council.

Mr. Husband could not understand the arguments of Drs. Stewart and Markham. They admitted that the profession should be more adequately represented in the Medical Council, and yet objected to the proposed addition. He thought that they had not grappled with the question, but had advanced arguments they were unable to maintain. In his opinion the interests or requirements of the general body of practitioners who resided in the agricultural districts, or the manufacturing districts—the active, hard-working, general practitioner—could not be properly attended to or faithfully represented by the nominees of the Crown or the professors of corporate bodies, almost wholly unacquainted with them. Persons who understood the requirements of the general body of the profession wished to have a voice in the proceedings of the Medical Council; then, and not till then, could it be said that the profession in general was properly supported.

Dr. Waters, who supported the adoption of the report, said the course pursued by Drs. Stewart and Markham reminded him of what a great statesman connected with the University they were then in had said—"That it was extremely easy to raise objections, but it was not so easy to apply remedies."

Dr. Lankester said it might be easy to withdraw some of the Government members of the Council, or reduce the number of professors of colleges belonging to it, in order to meet the difficulty.

The amendment was then put and lost, after which the adoption of the report was carried.

On the motion of Dr. Sibson, Mr. Williams was unanimously re-elected General Secretary for the ensuing year.

THE MEDICAL BENEVOLENT FUND.

The Secretary then read the annual report of the Medical Benevolent Fund, of which the following is an extract:—

"In again presenting the yearly account of the operation of the Fund, the committee do so with increased confidence in its usefulness. During the year the sum of £1035 has been distributed in grants for the relief of temporary distress, the largest amount hitherto given in any single year, the number of cases being one hundred, and thirty annuitants are now maintained by the permanent investments. The amount of suffering brought to the knowledge of the committee is but faintly indicated in the brief abstract of cases given with this report, and it should be remembered that this fund stands alone in supplying without loss of time the pressing necessities of members of the profession who are not of an age to be eligible for annuities, but who, from ill-health, physical disability, or misfortune, are in difficulty and distress. In addition to the care taken to proportion the grants to the urgency of the case, every endeavour is used to make the relief as effectual as possible by committing the sum voted to the hands of a member of the committee or some medical man for distribution; and at times a permanent provision is secured by the initiation of a subscription, which serves as a stimulus to the efforts of friends."

On the motion of the Rev. Dr. Bell, M.D., seconded by Dr. Seaton—

"That it is inexpedient to make such extensive changes in the form and conduct of the *Journal* as have just been made, without the consent of the members assembled at an annual meeting."

An animated discussion ensued, the mover and seconder severely condemning the alterations that had been made, maintaining that it was neither so convenient in size nor so scientific in character as in its late form.

The motion having been put from the chair, was negatived.

The meeting then adjourned.

THE CONVERSAZIONE OF THE OBSTETRICAL SOCIETY.

The *conversazione* at the Rotundo was a very brilliant affair, and attracted an immense assemblage. Every shade and grade of the profession seemed to be represented. Sociability and harmony were the order of the evening, from the first arrivals at nine o'clock. The large room in the Rotundo was thrown open for the promenade, and the refreshments were served in the adjoining apartment.

Wednesday, August 7.

The proceedings of this day commenced by a public breakfast at the Exhibition Palace, which was attended by more than two hundred members of the Association, at half-past eight o'clock a.m. At 9.50 the committee on Observation and Registration of Disease met in the Museum Buildings, Trinity College, and remained for some time in conference. At ten o'clock the meeting of the new General Council was held, Dr. Sibson presiding. The second general meeting took place shortly after eleven o'clock in the Examination Hall, to transact some business undisposed of the previous day, and to hear the address by Sir Dominic Corrigan, Bart. There was a large attendance of members of the profession representing the three countries. Professor Stokes, the President of the Association, occupied the chair.

Sir Dominic Corrigan, during and after the delivery of his

eloquent address in Medicine, which will be found in another column, was loudly cheered; and on resuming his seat, Professor ACLAND moved—

"That the cordial thanks of this meeting be given to Sir Dominic Corrigan for his able and valuable address."

He was sure they all felt that that address was of great value both to the profession and the public. Sir Dominic had most graphically brought under the notice of the council the difficulties under which they laboured in discharging their duties towards the public and the profession in the matter of medical education, and also the difficulty of combining at once solid advantages to the profession and solid benefits to the public for whom they ministered in the form of a technical medical act. The address would be perused by the profession and the public with great interest and satisfaction, and Sir Dominic Corrigan well deserved their warmest thanks for delivering it (applause.)

Sir JAMES SIMPSON, Bart., who seconded the motion, said he had never listened to an address which was characterized by more tact and energy and eloquence than Sir Dominic Corrigan's. Still, while he agreed with most, he did not agree with all, that Sir Dominic had laid down. He (Sir J. Simpson) belonged to a university that was looking up, instead of looking down, as Sir Dominic had put it. Even before the Medical Act passed, the examination there was good, and since then in many parts of Scotland the examinations had been gradually—he might say enormously—increasing. The University of Edinburgh the other day passed ninety-two graduates. How long were they examined? Each was examined for a time that altogether amounted to fifty hours. Sir Dominic Corrigan had laid down a number of rules for examination. Well, there were twenty-five members of the Council, and he would suggest that they should first pass the examination to see if they would like it. He ventured to say that if the full examination was carried out strictly, there would be twenty-four empty chairs round the President (laughter). Even Sir Dominic himself would scarcely pass in botany (renewed laughter).

The resolution was then put and carried unanimously.

The members then adjourned to the new Museum Building for the purpose of hearing Mr. Rumsey's address on "State Medicine." This address was characterised by great ability and deep research, the discussion that followed proving the interest manifested in the subject thus ably brought before the meeting. We regret the crowded condition of our columns this week, and the number of valuable contributions and papers we have standing over, preclude the possibility of our placing this address before our readers.

The discussion ended, which, for the same reasons, we are unable to give.

Dr. STEWART proposed a resolution—

"That a committee of the Council direct their attention to the amendment of the sanitary laws, to co-operate with the Social Science Committee on the subject."

He urged the making of general exertions to promote the objects in view.

Dr. SIBSON seconded the resolution, and bore testimony to the manner in which Mr. Rumsey had devoted himself to this important subject.

Mr. RUMSEY moved a resolution—

"That the Association express its decided approval of Dr. Farr's plan for the appointment of registration medical officers, and pledge itself to support that measure as the initiative step to a national organisation for the purposes of State Medicine."

These resolutions were unanimously adopted.

Dr. BEATTY, as President of the Midwifery Section, delivered an address, in which he gave an interesting historical sketch of the Dublin lying-in-hospitals. He also gave a cordial welcome on behalf of the profession in Dublin to their distinguished and numerous friends from the sister country who had honoured them by their presence. He hoped that the British Medical Association would have no reason to regret that the meeting of 1867 was held in the metropolis of Ireland.

The following papers were also read during the day—

Dr. HENRY BENNETT—On the subject of "Pulmonary Consumption," in which he treated of cases that led to this disease, and to the course of treatment usually adopted.

An interesting discussion followed, in which several members took part.

Dr. M'CALL ANDERSON—On a Case of Ephidrosis Cruenta, or Bloody Sweat; with Remarks.

Sir HENRY THOMPSON—Considerations suggested by the Study of One Hundred Cases of Stone in the Bladder of the Adult, recently Operated on.

Dr. C. FLEMING—On a Case of a Fibro-calcareous Tumour of the Uterus, communicating with the Bladder.

GEORGE SOUTHAM, Esq.—On Three Cases of Spontaneous Fracture of Urinary Calculi in the Bladder.

Sir J. Y. SIMPSON—On the Cephalotribe.

Dr. RINGLAND—Cases illustrating the Use of the Cephalotribe.

Mr. BRAXTON HICKS exhibited a cephalotribe, and explained its uses; after which the meetings in the several sections adjourned till nine o'clock, when the various members of the Association were received by the President and Fellows of the King and Queen's College of Physicians, at a grand *conversazione*, held in the magnificent rooms of the College in Kildare-street. For three hours a constant stream of visitors flowed in, till at one time not only were the halls and library filled, but the grand staircase was most extensively occupied by those unable to gain even standing-room elsewhere.

During the evening, the President, Dr. STOKES, conferred the honorary distinction of Fellowship of the College on the nine gentlemen, whom he named in his observations:—Having congratulated the College on the fortunate state of events by which, within a few hours of the bi-centenary of the institution, they were entertaining the British Medical Association, which they all so much admired—the objects of which were to elevate their common profession—an Association having followed two definite objects—the path of science on the one hand, and on the other the path of love, respect, and confidence, induced by mutual friendship and intercommunication of the members of the profession. It was a matter of enormous pride to learn that that College of Physicians had recognised the importance of the visit of this great body for the first time in Ireland, and in doing so did him the honour of placing him during the year of the intended visit in the chair of the College. Of all the circumstances of his professional life this had been the most gratifying to him, and the most honoured of all. The College was originally commenced during the life of Charles I.; but it received its first Charter from Charles II. Aug. 8, 1667. They were now, as he had said before, within a few hours of the bi-centenary of the College, and they believed that could not have been better marked than by the circumstance that within the walls of the College as at present, and recently erected, thanks to the energy of the late President, Sir Dominic Corrigan, they received the members of the British Medical Association. This College, which originally formed part of the University of Dublin, was determined to follow the example of that great seat of learning, which to-day would confer its highest honour on some of the members of the Association. As a child of Trinity College, the College of Physicians was not forgetting its traditions in doing honour to strangers. Therefore it was determined to elect a certain proportion of the Association into its list of honorary Fellows. This to him, as temporary head of the College, was a gratifying circumstance, and he begged to assure them that there was not a single Fellow of that College, or a single Licentiate, numerous though they were, who did not heartily and faithfully participate in the feelings which he had expressed. They were determined on honouring nine of the most distinguished physicians; and when he said honour he should have added that it was mutual. It was an honour to receive the diploma from the College of Physicians, and it was an honour to the College to have such recipients on its roll. The latter, he should say, was by far the greater. Those who were to be so honoured were the following:—Professor Hughes Bennett, of Edinburgh, one of those men of progress who sought to place medicine on some secure foundation. Dr. Waters, the ex-President of the Association. The same principle that actuated the heads of the Dublin University were adopted here, both at the same time wished to honour the individual for his scientific merits, and to honour the association in its general character. They had Dr. Falconer, whose contributions to medicine as well as those of Dr. Waters, had done so much credit to the British Association; they had Dr. Stewart, of London, the zealous worker in the great field of sanitary science, and he would say the representative in England of that branch of research which was, day after day, assuming greater proportions; they had Dr. Markham, whose high tone of feeling had done so much to uprise the profession; they had two members who were unavoidably absent—Dr. Gream, of London, and Mr. Spencer Wells; next, they had the celebrated Professor Polli, of Milan, a man also remarkable in the progress of medicine; and, though last not least,

that arduous worker in the promotion of physiological pathology, Mr. Jacob L. Clarke.

The applause having subsided,

Dr. HUGHES BENNETT briefly returned thanks, and the proceedings terminated.

THURSDAY, AUGUST 8.

The address in the Surgery Section was listened to in the Examination Hall of Trinity College by a very large and enthusiastic audience, who manifested their appreciation of the eloquence and ability of Professor Smith by frequent bursts of applause. After the conclusion of the address, which we publish in another column,

Professor SYME expressed the satisfaction he felt in listening to an address which was not one of abstract ideas and vague sentences strung together, but Dr. Smith had directed their attention to a special subject of surgical practice, and brought to bear upon it the lights of his long and large experience. He hoped that what had fallen from Dr. Smith would not be without its results to the profession at large. He begged to propose what he was sure they would all most cordially agree in, namely—

"That the cordial thanks of this meeting be given to Professor Smith for the very able and valuable, and—I shall beg leave to add—most eloquent address."

Mr. WILLIAM BOWMAN, F.R.S., hoped in seconding the resolution, he might be permitted to say a few words. He was sure they would all agree with him that few had ever listened to an address more eloquent. He should say, as an exposition of the tone and spirit which ought to influence all as members of the Medical Profession, than that which they had listened to, to say nothing of the very interesting practical remarks which had formed the staple of the address. Professor Stokes said a few words to the effect that thirty years ago an eminent member of the Profession spoke very disparagingly of the state of surgery at that time. He remembered that just thirty years ago, spending a few weeks in Dublin amongst the hospitals and museums, and he would say that from what he saw there in the clinical wards of Collis, of Cusack, of Robert Adams, and of Porter, and in the splendid museums, which were then already great and noble, and which are now infinitely greater, he saw nothing to bear out the character of that lowering remark. He could not forbear, remarking on the excellence of those observations which were made with reference to the neglect of the classic and older authors of our Profession, not only by students, but by those who by their more mature experience are more able to appreciate the value of the remarks of those older writers. We did not see anything of the ordinary minds of past centuries. We saw amongst ourselves, no doubt, the whole of our present contemporary literature, and in that there was much, no doubt, to be regarded; but he did not believe at all that the present day was more prone to the weaknesses and follies which were so eloquently exposed than past ages. He believed that if they were then living we should have had just the same cause for complaining that much was to be deprecated in the practice of the Profession, and which belonged not so much to the Medical Profession as to human nature itself. It must always be that of those who have not yet obtained experience, and who are anxious to acquire notoriety, some must act upon lower motives than others; and he thought they must look charitably always at the efforts of younger men who were endeavouring to promote science, and at the same time to further their own prosperity and progress in the world. They must both look charitably and endeavour themselves to act upon a higher standard. He would not detain them longer than by making those very few remarks, which arose in some measure out of the eloquent and burning address which they had heard, and which they should, no doubt, have the pleasure of reading and of doubly and trebly enjoying.

After a few complimentary remarks on the ability displayed by Dr. Smith in his address from Dr. Wharton, Professor Acland, and the President, the resolution was put and carried with acclamation.

In this section during the day, papers were read by

Dr. GEORGE BUCHANAN.—On the treatment of Elephantiasis by Ligature of the Main Artery of the Limb; with a Case in which cure was effected by Ligature of the External Iliac Artery.

Dr. RAWDON MACNAMARA.—Ligature of the Femoral Artery according to the Plan of the late Professor Porter.

Dr. MAPOTHER.—Treatment of Aneurism; advantages of completely arresting the Current through the Sac.

Mr. J. Z. LAWRENCE.—On a Case of Traumatic Aneurism of the Orbit, in which the Common Carotid Artery was successfully tied.

Dr. W. MURRAY.—Report on Two Cases of Aneurism cured by the rapid Pressure treatment.

The discussion on the papers read was taken at the four o'clock P.M. sitting, and were taken part in by a number of gentlemen, including Sir James Simpson, Dr. Macnamara, Dr. Byrne, Mr. Meade, Dr. Mapother, Dr. Geoghegan, &c.

Dr. MORGAN invited Professor Pirrie to give a practical demonstration of acupressure, which would be better than any lecture.

Professor PIRRIE said he should be most happy to do so.

It was then arranged that gentlemen should meet Professor Pirrie at the College of Surgeons at seven o'clock, on Friday morning, for that purpose.

In the section devoted to contributions to and discussions in medicine, a paper was read by Dr. S. Gordon, on "Cerebro-Spinal Fever." This contribution produced a very lengthy discussion, and much valuable information on the subject was adduced.

Papers were also read by:—

Dr. LEARED.—On the successful use of arsenic in certain painful affections of the stomach.

Dr. POLLI (Milan.)—Treatment of Zymotic Diseases with Sulphites.

Dr. PATON.—On researches on the action of the heart.

Dr. GEORGE H. KIDD.—Exhibited a cephalotribe; with remarks.

Dr. GREENHALGH.—Cæsarean section.

Dr. AVELING.—Pelvi-uterine mensuration, by means of combined sounds.

Dr. PROTHEROE SMITH.—To exhibit inhaler, speculum, and other instruments.

Dr. PROTHEROE SMITH.—On the mode of detecting impurities in tetra-chloride of carbon.

At three o'clock Professor HUGHES BENNETT, M.D., delivered his address, which was on the subject of "The Effects of Mercury." He stated that in an address delivered last year at Chester he urged upon the Association the propriety of doing something in its collective capacity towards solving one or more of those doubtful points in practical medicine connected with the action of particular medicines in the treatment of disease. A sum of £25 was granted for the purpose, and a committee appointed, under his direction, and they decided upon investigating the action of mercury in animals. The learned professor's paper was of a purely scientific and medical character, and detailed the results of various experiments made on dogs and other animals, with a view to throwing light upon the action of mercury.

Dr. WATERS, Ex-President, pointed out that the researches in which the committee presided over by Dr. Hughes Bennett had engaged were of so important a character that they ought to be persevered in. It was impossible that this could be done unless the requisite funds were provided, and he, therefore, moved—

"That this meeting approves of the grant already made by the Council, and desire that the Committee may be yet further assisted by such grant as the Council may consider themselves justified in giving."

Dr. RADCLYFFE HALL seconded the resolution, which passed mously.

Other gentlemen expressed their concurrence in the necessity of raising a fund to defray the cost of the investigation, and provide a suitable remuneration to the gentlemen who were obliged to devote time, labour, and scientific knowledge to them; and

On the motion of Dr. MARKHAM it was resolved that the Committee of Council be instructed to raise a fund in what way they may think best for the purpose.

Rev. Professor JELLETT exhibited the Saccharometer, his own invention, of which he gave an admirable explanation.

Dr. LOCKHART CLARKE read a paper on "The Pathology of Loco Motor Ataxy," and Dr. Bateman on "The Localisation of the Faculty of Speech." Some extraordinary cases of the sudden loss of speech and the intellectual results that followed were given during the discussion that followed.

THE COMMENCEMENTS.

At an extraordinary meeting of the Members of the Senate of the University held in the Examination Hall of Trinity College, Honorary Degrees in Medicine were conferred on the following distinguished members of the profession:—

Acland, Henricus Wentworth, Soc. Regiæ Soc. Med., Prof. Reg. Univ. Oxon.

Bowman, Gulielmus, Societatis Regiæ Socius.

Paget, Georgius E. Lector Linacriensis in Med., Univ. Cantab.

Rumsey, Henricus Wildbore.

Sibson, Franciscus.

Syme, Jacobus, Chirurgiæ Professor Edinensis.

Simpson, Jacobus Y., Baronettus.

Teale, Thomas Pridgin, Soc. Regiæ Socius.

The Right Hon. Judge Keating, as Provice-Chancellor, presided.

Dr. STOKES, in introducing Dr. Acland, said—Right Hon. Provice-Chancellor and Members of the Senate, I have to present to you Dr. Henry Wentworth Acland, Regius Professor of Medicine in the University of Oxford, Fellow of the Royal Society, and many other learned bodies, and a gentleman who has done great things for the profession by his genius. It is to his deeds that we owe the great establishment for the cultivation of the physical sciences in Oxford, and in a great measure the introduction of those physical sciences into the arts course in general at that great seat of learning.

In introducing Mr. Bowman, Dr. STOKES said, the name of that gentleman had been long known in the annals of science as a great physiologist. He also was a Member of the Royal Society, and he was a gentleman of excellent parts, and admirable tastes, and unspotted character.

Dr. Paget, Professor of Medicine in the University of Cambridge, was next introduced to the Senate by Dr. STOKES, who said that Paget's contributions to medical science entitled him to the gratitude and respect of all who cultivated or loved learning.

Mr. H. W. RUMSEY was next on the list.

Dr. STOKES said that Mr. Rumsey had for many years devoted all his spare time to the furthering of the cause of State Medicine, a subject which was assuming very great importance now throughout the civilised world, and more especially in England. His writings had received the highest attention, and were considered by his own profession, and the profession of the law, as likely to lead to the best possible results.

Dr. STOKES next introduced Dr. Francis Sibson, of London, who was, he said, a Graduate of Medicine in the London University. He was the President of the Council of the British Medical Association, which that University has done so much to honour. As he was President of the Council of that Association it was hardly necessary for him (Dr. Stokes) to say another word in his behalf. He was member of many bodies who were employed by the Government in all matters connected with sanitary science, and he had been lately Secretary of the Committee for Promoting Uniformity in Medical Nomenclature, which would greatly subserve the cause of the public registration of deaths and the general health of the country.

Dr. STOKES said the name of Sir J. Y. Simpson was so well-known that he should abstain from making any observations respecting him. He presented him as one of the greatest benefactors of suffering humanity.

Dr. STOKES said he had then to introduce Professor Syme of the ancient University of Edinburgh, and in doing so he would only borrow the words of one of their own professors, which were uttered a short time ago in that hall, that "he was a gentleman to whom might be attributed that he bore the sceptre of surgery in Edinburgh."

Dr. STOKES said he had next to present to the Provice-Chancellor, and to the University, Mr. Teale, whose writings had obtained for him a world-wide reputation in the healing art. Mr. Teale might safely be said to be one of the most leading surgeons in England, and he might add to that one of the leading surgeons in the world.

As each gentleman came forward to receive the honours from the hands of Judge Keating, the greatest enthusiasm on the part of the Fellows, and Members of the profession assembled was displayed.

The Royal College of Surgeons also bestowed honorary diplomas of Fellowship in the course of the afternoon. Two recipients, however, Professors Syme and Bowman were the only members of the profession on whom the honour was conferred.

On presentation of the same by the President, Dr. Adams, (the seals being enclosed in handsome silver cases),

Mr. SYME replied in a suitable speech, expressing his entire satisfaction at the great efficiency and celebrity of the Dublin School of Surgery. Thirty years ago, when he came here first, he formed the highest opinion of the School, and the progress of years had not induced him to change it.

Mr. BOWMAN made a speech similar in effect, and the proceedings terminated.

FRIDAY, AUGUST 9.

This was the last day of the meetings, the whole four sections being carried on simultaneously in different parts of the building. As there were a great many papers to be read, and much business to be got through, but little time was allowed for discussion.

Dr. MAPOTHER read a paper on "The Topography of Cholera," in which he sought to show the dependence of that disease upon the dampness produced by old streams and pools in Dublin, London, Liverpool, and other cities. He also adduced evidence to show that the poison of cholera was of cryptogamic origin, and arose from a parasitic plant, a conclusion which was supported by the analogy of what had been found true of other zymotic diseases.

Dr. P. C. LITTLE also read a paper on the same subject, the views taken by the latter gentleman differing almost entirely from the former. He maintained that the disease was a contagion, probably communicated through the medium of water, air, or food; that its development and diffusion depended upon certain atmospheric, hygienic, and bygienic conditions; that the chief effects of this condition were produced upon the sympathetic system, especially those presiding over the gastro-intestinal tract; that these nerves were powerless to discharge their functions while in contact with the morbid products of the diseased; and that the proper treatment was, therefore, to remove those products and give tone to those nerves.

A somewhat lengthy discussion took place on the relative merits of the two papers, in which the following joined:—Dr. Moore, Dr. Hewitt, Dr. Davis, Dr. Wharton, Dr. Martin, of Portlaw; Dr. H. Kennedy, Dr. Protheroe Smith, Dr. Steele, of Liverpool; Dr. Popham, Dr. Day, of Stafford; Dr. R. Byramjee, Assistant-Surgeon, Bombay Army; Dr. Camps, London; Dr. Shinkwin, and Dr. Tibbets, of Bristol.

Dr. LORY MARSH'S paper on "Idiopathic Abscesses of the Brain," was next read by Dr. Jacob, Dr. Lory Marsh being absent through illness.

Professor GAIRDNER'S communication was on "The Fever Dens of Glasgow," and which, unfortunately, existed in every large town. He spoke of the means employed for the better accommodation of the poorer classes in Glasgow, and mentioned that whenever fever commenced its ravages in that city, hospital carriages were immediately put in use, the sick taken from their wretched hovels, and their clothes sent to wash-houses erected for the purpose, for disinfection. He recommended that everything should be done to enlist the sympathies of landlords of house property in any arrangements that were made for its sanitary improvement.

Dr. ACLAND said it was intolerable that in any town whatsoever, at the present day, any habitations should be allowed to be erected which were unfit for human habitation. There were parts of the east end of London in which the mischief in question could not be equalled by anything existing either in Glasgow or Edinburgh.

Dr. MAPOTHER mentioned that the Corporation of Dublin lately erected in this city, at a cost of £303, a disinfecting-chamber on the plan of that in Liverpool, which had succeeded so well in Liverpool. In this the temperature was ordinarily raised to 300°, and frequently 350° F.

The other papers communicated in this section were by Dr. Joseph Lalor, on Epidemic Fever; and two by Dr. Kennedy, on Types of Fever, and on Puerperal Purpuric Fever.

In the Section on Physiology, the following papers were read:—

Dr. Lockhart Clarke, on "The Pathology of Locomotor-Ataxy;" Dr. Bateman, on "The Localisation of the Faculty of Speech;" Dr. Sibson, on "Movements, Rhythm, and Sounds of the Heart," and on "The Cardiograph;" Dr. Hayden, on "The Pathology and Diagnosis of Inorganic Mitral Regurgitant Murmurs;" Dr. Cruise, on "The Endoscope," with experiments.

Dr. MacDonnell exhibited a Microspectroscope; Dr. O'Leary on "The Thermal Value of Food, and on the Application of Food for Calorifying Purposes and Work Done;" Dr. Cameron, on "The Assimilation of Gelatin;" Mr. Tichborne, on "The Nature and Examination of the Organic Matter found in Potable Water;" Dr. Z. Johnson, "A Suggestion for the Sanitary Improvement of Towns and Private Dwellings;" and "A Case of Singular Cardiac Derangement."

In the Section on Surgery, papers were read by—

Dr. JULIUS ALTHAUS—"Electrolysis of Tumours."

Mr. M. H. COLLIS—On "The Treatment of Tumours by Electricity."

Dr. MORELL MACKENZIE—"On the Use of Electric Cautery in the Treatment of Laryngeal Growths."

Dr. HINGSTON (Montreal)—"An Operation for the Relief of Deformity from Disease of the Hip-joint."

Mr. JOSEPH LISTER—"On the Antiseptic Principle in the Practice of Surgery."

SECTION D.—MIDWIFERY.

Dr. BEATTY presided.

Papers were read by—

Dr. DENHAM—"On the Use of Ergot of Rye."

Dr. HARDY—"On Hysteria Treated by Strychnia."

Dr. F. CHURCHILL—"Granular Endometritis."

Dr. EVORY KENNEDY—"Extra-uterine Fœtation, detected at an Early Period of Gestation."

Dr. J. A. BYRNE—"Case of Purpura Hæmorrhagica.

Sir J. SIMPSON, Bart., exhibited a variety of instruments, on which an interesting discussion followed.

FIFTH GENERAL MEETING.

At five o'clock the closing general meeting of the Association was held in the New Museum Buildings.

The chair was taken by the President, Professor Stokes.

Dr. WATERS, ex-president, said—Mr. President and Gentlemen, at the close of the thirty-fifth anniversary of the British Medical Association—the meeting which is now at an end—I am able justly to say that, though great things were expected, the results have far transcended our most sanguine expectations. The resolution entrusted to me is, that the cordial thanks of this meeting be given to the writers of papers. It does not devolve on me to say one word in regard to the addresses in medicine and surgery delivered by Sir Dominic Corrigan and Professor Smith. They have already, in the Examination Hall, met with the warm approbation of the Association, as well they might, for on no previous occasion has such energy characterised the addresses on the other side. The thanks I have to propose are to the writers of papers. On this occasion the communications have been more numerous than on any previous meeting of the Association. Not only have they been more numerous, but on no occasion have they attained a higher degree of interest, and on no occasion has the attendance at the reading of papers been so general. And, owing to the division into sections, an amount of work has been got through which has previously been found impossible.

Dr. MARKHAM seconded the resolution, which was carried unanimously.

Dr. SIBSON then said that it was his pleasing duty to move a vote of thanks to the Provost and Senior Fellows of Trinity College for the admirable arrangements made by them for the various meetings, general and sectional, and the generous hospitality shown by them. He was quite certain he had but to read this motion for an unanimous expression of true feeling on the part of that meeting to be shown. There could be no question, as far as he knew, with the exception of their meetings at the two sister universities of England, that there had not been a meeting at which any one institution afforded such facilities for the work of the Association, and at the same time bestowed upon them such splendid hospitality. In fact, he could not but feel that much of the great and signal success of this meeting was to be attributed to the fact of their labours having been centered in this University. But it is not only the fact of this being done by the Provost and Senior Fellows, but it is the mode and spirit in which they have done it—the mode in which they have thrown open the whole of this magnificent institution to them, and carried them as if they were of themselves into that most honoured body, who received and conferred upon them the highest degree of medicine. He could but express the deepest possible feelings of gratitude which animated his mind, and, if he might be excused for mentioning a personal reason for that, it was that they had done him the favour of showing him the name of his father, written down in the list of students in that University in 1795. It might be right or wrong to mention that, but it showed how the great men who had charge of that place thought of their sympathies, although they were merely there as casual visitors. He entertained the warmest sense of the goodness and kindness of the heads of that institution, and, therefore, he had great pleasure in moving that vote of thanks.

Dr. STEWART, in seconding the resolution, said that he had scarcely anything to add to what his friend, Dr. Sibson, had said. He regarded it as of the greatest importance for their young and vigorous institution to be brought into contact and friendly relations with the vigorous and venerable institutions of the past. They felt that very much when they last met at Cambridge—the same sentiments prevailed at Oxford, and now that they had met in that great institution of Ireland they felt it more strongly than ever, for they felt that that meeting would be one of the most remarkable meetings in the existence of the Association, and that they would from that time take a great start forward, and he hoped that the benefits would be equally extensive to the Profession in Ireland.

The resolution was unanimously adopted.

Dr. FALCONER said it was individuals who gave the impress to the operations of committees. There was one individual in particular who gave expression to all their good wishes, and without whose aid and kindly co-operation their meetings, on the whole, would not have been brought to so successful an issue as they had been. He believed they were greatly indebted to Professor Haughton for having given such perfect expression to the wishes of the authorities of the College, that no person was brought into contact with him without receiving from him every assistance in his power, which was rendered in an admirable and affectionate manner. The resolution he had to propose was: "That the special thanks of the meeting be given to Professor Haughton, Medical Secretary to the School of Physic, for his unwearied exertions in promoting the success of the meeting."

Mr. CEELY, of Aylesbury, seconded the motion, which was adopted.

The PRESIDENT said Dr. Haughton had devoted much labour in the promotion of these meetings.

Rev. Dr. HAUGHTON said he felt highly complimented by the vote which had just passed, on his own behalf as well as on behalf of the Provost and Senior Fellows of the College, who did him the honour of asking his assistance in this matter. They had on the board gentlemen who had acquired a reputation in various branches of literature and science second to none in the world. They felt that the Medical Association was working to carry out the ends for which Queen Elizabeth founded this college. He did not know what was in store for the college, but as a Tory he did not like changes; but whatever changes might come about, and whatever the aspect of their ancestors in that respect might be, he trusted that when an educated and cultivated body such as the British Medical Association might come to Dublin, the Provost and Fellows would permit none in Dublin to take precedence of them in the matter of a welcome. He was requested by the Provost, Dr. Lloyd, to express to the Association his extreme regret that his almost necessary absence from Dublin rendered it impossible for him to maintain the hospitality which had always characterised the Provost's House.

Dr. BEATTY said he felt pain in bidding this Association farewell; but everything should have an end, and it was tantalizing to have only a short week's enjoyment of the friendship of men who were respected wherever the English language was spoken. The best of friends should part, and in that parting he looked forward to a happy meeting at Oxford. He moved the thanks of the meeting to Mr. Tufnell, Dr. Cruise, and Dr. William Stokes, for their very valuable services as honorary secretaries to this annual meeting. He bore testimony to the great exertions made by these gentlemen.

Dr. HAMILTON seconded the motion, which was unanimously agreed to.

On the motion of Dr. CHARLTON, seconded by Dr. SIBSON, a vote of thanks was also passed to the Presidents and Secretaries of the various sections for their efficient services. In seconding the motion, Dr. Sibson said he was happy to know that the sectional system, which had worked so well, originated in Dublin.

On the motion of Mr. WILLIAMS, Secretary, Dr. Stokes left the chair, and Dr. Sibson was called thereto.

Dr. ACLAND then moved "That the very warmest thanks of this meeting be given to Professor Stokes, Doctor of Medicine and Doctor of Civil Law, for the very able and courteous manner in which he has conducted the business of this annual meeting." He spoke of the great scientific acquirements of Dr. Stokes, and also of his courteous conduct towards every member of the Association.

Dr. BEATTY, in seconding the motion, said that when it was made known in Ireland that this great Association had been pleased to select this part of her Majesty's dominions for meet-

ing in 1867, he confessed he felt the greatest pleasure when he found it was to be presided over by his friend Dr. Stokes. He felt that Irishmen were put on their trial, but he also felt that their honour and reputation were safe in the hands of Dr. Stokes—he felt all doubt disappear when he heard he was to be the President of that great Association, and he was quite pleased to find that his merits were appreciated by the Association.

The CHAIRMAN, in putting the motion, said it was Dr. Stokes's happy privilege to be the founder of a new era in the history of the Association.

The resolution was carried with acclamation.

Dr. STOKES, in reply, said—I feel very much moved by your kindness. I have done my best. I am quite sure I might have done better. I feel with Dr. Beatty great regret at parting with you, hoping, however, we may meet again before long. All I can say is, that from the bottom of my heart I thank you.

This concluded the business of the Association.

THE CONVERSAZIONE AT THE ROYAL COLLEGE OF SURGEONS.

In the evening the members of the Association were entertained at a grand conversazione, by the President and Council of the Royal College of Surgeons. The arrangements were perfect, and gave universal satisfaction. The attendance was scarcely so large as at the two previous soirees, many members having left Dublin during the early part of the day.

Messrs. Weiss & Sons' instruments were much admired, especially those for the operation of lithotomy; as were also those exhibited by Dr. L'Estrange.

The museum, library, examination hall, and all the other apartments of the College were thrown open for company. A highly interesting collection of instruments and objects of scientific and philosophical interest were exhibited. Amongst these were many rare specimens illustrative of natural history. Much admiration was excited by some beautiful casts of fish, painted from recent specimens under the direction of Dr. Carte, and by a process invented by him, representing fish in their natural colours, and with the fresh and glistening appearance which they present on being taken out of the water. Dr. Barker, the Curator of the Museum of the College; Dr. Mapother and Dr. Richardson, exhibited some most interesting microscopic preparations.

Altogether it was one of the most successful and best arranged meetings of the week, a worthy finale to a noble and magnificent reception.

SATURDAY, AUGUST 10.

About fifty-six members enjoyed the Boyne excursion under the leadership of Sir William Wide; and a large number went on the Wicklow excursion under the conduct of Dr. Darby.

SOIREE, NINE P.M.

Lord Talbot de Malahide, President of the Royal Irish Academy, gave a conversazione to the Members, at the Academy Buildings in Dawson-street. It was numerously attended by ladies and gentlemen, who, with much interest, examined and admired the antiquities and objects of art belonging to this distinguished body.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE President, Vice-President, Council, and Fellows met on Thursday last, at three o'clock, for the purpose of conferring on Mr. Syme and Mr. Bowman, F.R.S., the Honorary Fellowship of the College.

The President having entered the Board-room, and taken his seat, Mr. Syme and Mr. Bowman were presented to him.

The PRESIDENT (Dr. Robert Adams) then said—

Mr. Professor Syme and Mr. Bowman—You have been made aware of the circumstance that on the 1st of August you both have been unanimously elected Honorary Fellows of the College, by a resolution of Council. We now avail ourselves of your presence in our city to put into your hands our diploma. We feel that in this place it would be quite unnecessary to state our reasons for so acting, or to add what you have done for the advancement of the science and art of Surgery. Both of your names are interwoven with the progress of surgery, and the shelves of the library of our College have long contained your several works. By handing to you these diplomas, and adding your names to the scanty, or rather *recherché* list of honorary fellows, we give the best proof of the estimation in which you are both held in this College. By so acting we express a wish to do you an honour, and cannot doubt but, at the same time, the College itself will be really honoured by having added to its list of honorary fellows the names of two such men as those of Professor Syme and Mr. Bowman, in the eminent position ye have both attained, the one in Edinburgh, that revered seat of medical learning and of scientific education, and the other in London, the capital of the world. Lastly, I congratulate myself upon the circumstance of my being President of this College, and that I have been thus the medium of communicating to two of my valued friends the greatest distinction the Royal College of Surgeons in Ireland has to bestow.

The Diploma of Fellowship, enclosed in handsome morrocco case, was handed to Mr. Syme and Mr. Bowman, amid loud applause.

Mr. SYME then said—Mr. President and Gentlemen,—Many years ago, when little more than a student, I happened to be present when the foundation stone of this magnificent building was laid by the Marquis of Wellesley, and then very little anticipated that within its walls I should now receive such a distinguished honour as that which you have been pleased to confer upon me. I fully appreciate its value, and beg you will accept the assurance of my deepest and sincerest gratitude.

Mr. BOWMAN said—How can I express my grateful feelings on receiving so unexpected an honour from this great College, representing Irish Surgery, and in the presence of so many distinguished men? I am reminded by the place in which I stand, and by your honoured presence, sir, in that chair, of days long since passed, when you, and others of your colleages in the great clinical school of Dublin, inspired a young student with sentiments of admiration which the lapse of time has only served to strengthen; and when you admitted me to your friendship, what I then saw of the system of teaching pursued in the wards of the great hospitals of your city, and the careful study I made of the stores accumulated in your museums (and I referred to my notes of them but yesterday), convinced me that the Dublin School of Medicine and Surgery—eminently honest, scientific, and practical—was second to none in Europe, if, indeed, it did not in some respects surpass most. I found Collis, Cusack, yourself, sir, Carmichael, Porter; with Graves and Stokes in Medicine, laboriously and richly turning to the best uses of science and of instruction the great opportunities you possessed—exhibiting yourselves to your students as students yourselves in the great field of nature, and imbuing them thus with your noble spirit as well as with your doctrines. The eminent merit of Dublin as a Clinical School of Medicine and Surgery has been, perhaps, less appreciated than it deserves by the world at large, owing to its geographical position, somewhat aloof and insulated from the ordinary tracts of travel. The more it is known by personal inspection, the more highly, I am certain, will it be esteemed; and I am conscious that no reward which so humble an individual as myself can possibly receive for professional labours, could be more flattering than spontaneous and honourable testimony of the good opinion of such a corporation as yours. I may be permitted to say that its value is enhanced by the circumstance that, in receiving it, I stand by the side of one of the most distinguished men that any age of great Surgeons has produced. I hope I shall not be considered out of order if I add my grateful acknowledgments, as an individual member of the British Medical Association, for the grand hospitality with which it has been received by the profession in Ireland. How auspicious, in all respects, the present meeting appears, and how calculated to promote that unity of sentiment, of thought, and action, so necessary to be fostered through the whole body of our profession in the present day. Our Association is growing more and more into harmony with the spirit of the age in which we live; may all its wise purposes be accomplished. May it be a bond—it, or something like it, must apparently be the main bond of the future—between all our members, if all are to be brought truly into one community and fellowship. For local colleges and corporations which have a local origin and seat, must ever remain more or less local and restricted—must have local duties, local interests, local sympathies. That only can bear an universal character which is migratory, finding its home everywhere in turn; which is willing to embrace and include every honest earnest member of our profession, wherever his lot may chance to lie, wherever his field of honourable toil, whatever the style or title by which he may be addressed. Gentlemen, I thank you. (Applause.)

The College then adjourned.

ANDERSON'S UNIVERSITY, GLASGOW.

THE MEDICAL SESSION will be opened on Tuesday, the 29th of October, 1867

Chemistry	10 A.M. ...	Dr. Penny.
Practical Chemistry ...	11 A.M. ...	
Surgery	11 A.M. ...	Dr. G. H. B. Macleod.
Institutes of Medicine ...	12 noon ...	Dr. E. Watson.
Anatomy Lectures ...	5 P.M. ...	Dr. George Buchanan.
Demonstrations on Practical do.	1 P.M. ...	
Materia Medica	3 P.M. ...	Dr. Morton.
Practice of Medicine ...	4 P.M. ...	Dr. J. McCall Anderson.
Midwifery (in Summer) ...	... ...	Dr. J. G. Wilson.
Medical Jurisprudence (in Summer)	... ...	Dr. Leishman.
Botany (in Summer) ...	... ...	Mr. Hennedy,

CLASS FEES.—For each Course, £2 2s.; Second Session, £1 1s.; afterwards free. Anatomy (both Courses), £4 4s.; Second Session, £4 4s.; afterwards free. The fees for *all* the Lectures and Hospital Practice required for a Diploma amount to £40.

A Syllabus, with full particulars, may be obtained from Dr. George Buchanan, 193, Bath-street, Glasgow.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.

WINTER SESSION, 1867.

THE INTRODUCTORY LECTURE will be given by Dr. ODLING, F.R.S., on TUESDAY, OCTOBER 1st, at Five P.M.

COLLEGIATE ESTABLISHMENT.

Students can reside within the Hospital Walls, subject to the College Regulations.

Further information may be obtained from Mr. THOMAS SMITH and Mr. CALLENDER, and at the Museum or Library.

LONDON NURSES' INSTITUTE, 42, South Audley-street, Grosvenor-square, W.

TRAINED NURSES (Medical, Surgical, Mental, and Monthly), can at all times be obtained from this Institute.

Hospital Appointments by special arrangement.

Letters and Telegrams should convey the nature of the case to be attended.

Apply to the Manager or Matron. T. HAMILTON, Manager.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

NOTICE is Hereby Given, that the next QUARTERLY EXAMINATION for the DIPLOMAS in MEDICINE and MIDWIFERY will be held in the COLLEGE HALL, on TUESDAY 27th, and WEDNESDAY 28th AUGUST, prox.

Candidates qualified as follows are required to undergo the second day's Examination only, viz.:—

1. Graduates in Medicine of a University recognised by the College.

2. Fellows, Members, or Licentiates of the Royal Colleges of Physicians of London or Edinburgh, who have been admitted upon Examination.

3. Members or Licentiates of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin.

Candidates for Examination shall return their Names to the Registrar of the College, and lodge their Fees and Certificates, on or before the 24th day of August, prox.

LOMBE ATTHILL, M.D., Fellow and Registrar.

July 31, 1867.

Apothecaries' Hall of Ireland, 40 Mary-street. The following new Medicines and Preparations are manufactured in the Laboratory on the premises, and a supply constantly on hand:—

THE NEW PREPARATIONS OF THE PHARMACOPŒIA, 1867.

TICHBORNE'S VESICATING COLLODION.

Dr. Richardson's Styptic Colloid; Syrup of Phosphate of Iron, Quina, and Strychnia; Chlorate of Quina; Perchloric Acid; Carbolic Acid, pure and crude (the latter free from Sulphuretted Hydrogen).

WOODHALL Spa and Hotel, near Horncastle, Lincolnshire.—This well-known Mineral Spa, which has been for many years highly recommended by the Faculty for the cure of Strumous Complaints, Tumours of various kinds, Rheumatism, Gout, Epilepsy, and Specific Constitutional Diseases, especially those of the Skin, is now in first-rate order. The Hotel replete with every comfort, and the charges moderate. Hot, cold, shower, and hip-baths always ready. This Spa contains more Bromine and Iodine than any known water; and its curative powers are unsurpassed.

The Woodhall Spa Station of the Great Northern Railway closely adjoins the beautiful grounds of the Hotel. The water will be supplied bottled, or in jars, on application to the Bath-man.

June 1, 1867.

APOTHECARY WANTED.

SKIBBEREEN DISPENSARY.—Salary, £20.

SALE BY TENDER.

TO MEDICAL MEN AND THE CHARITABLE.

THE COMMITTEE of the LONDON SURGICAL HOME HOSPITAL for WOMEN, Notting-hill, have determined to receive Tenders for the purchase of the Ground Leases of Nos. 17 and 18, Stanley-terrace, the Lease of No. 35, Ladbroke-gardens, together with the whole of the Furniture and Fixtures contained in the houses now in the occupation of the Home. The Committee are desirous, if possible, of perpetuating an institution where so much good has been done, and which is likely to receive the support of, and yet to prove a great boon to the neighbourhood. The Committee do not bind themselves to accept the highest of any tender, but avow that a preference will be given to Medical Men and the Charitable. Particulars of the Leases, and detailed lists of the Furniture, &c., may be seeen at the Home, and premises viewed, by application to—

WOLLASTON F. PYM, Secretary.

By Order of the Committee.

Stanley-terrace, Notting-hill, August 7th, 1867.

Tenders to be delivered at the Home on or before the 19th instant.

ACCIDENTS WILL HAPPEN!!

EVERYONE should therefore provide against them! £1,000 IN CASE OF DEATH, or £6 Per Week while Laid up by Injury, caused by ACCIDENT OF ANY KIND (Riding, Driving, Hunting, Shooting, Fishing, &c.), May be secured by an Annual Payment Of from £3 to £6, 5s. to the RAILWAY PASSENGERS ASSURANCE COMPANY, CORNHILL, AND 10, REGENT-STREET, LONDON.

WILLIAM J. VIAN, Secretary.

LECTURES ON

Experimental and Practical Medicine. By BENJAMIN W. RICHARDSON, M.A., M.D., F.R.C.P.

Dr. Richardson delivers a lecture on Experimental and Practical Medicine on the first Tuesday of every month (except during the months of July, August, and September), at the Laboratory, 12, Hinde-street, Manchester-square, W. The lecture hour is from 4.30 to 5.30 P.M.

The Lectures treat on such new subjects in the advance of medicine as admit of demonstration and of useful application in daily practice; but they in no way interfere with the systematic teachings of the Medical Schools, and Students of any school may enter for the Course.

Fee for the annual Course of Nine Lectures, with certificate of attendance if wished, £5 5s.

The Course will recommence on the 4th of October.

Applications for admission are to be made to Mr. John Skinner, 12, Hinde-street, W.

HEDGES AND BUTLER

SOLICIT ATTENTION TO THEIR

PURE MONTILLA SHERRY,

Free from Spirit; strongly recommended for Invalids. This wine is extremely delicate, and to those requiring tone to the system, but who cannot drink the ordinary strong wines of Spain, will be found invaluable.

PURE ST. JULIEN CLARET,

At 18s., 20s., 24s, 30s., and 36s. per dozen.

Choice Clarets, of various growths, 42s., 48s., 60s., 72s., 84s., 96s.
Good Dinner Sherry, 24s., 30s., and 36s.
Choice Sherries, 42s., 48s., 54s., 60s.
Port, from first-class Shippers, 30s., 36s., 42s.
Very choice Old Port, 48s., 60s., 72s., 84s.

List of all other Wines and Liqueurs on application.

HEDGES AND BUTLER,

London, 155, Regent-street, W., and 30, King's-road, Brighton.
Originally Established A.D. 1667.

Langdale's Ethyl C4 H5 and Cantharidine will positively reproduce, thicken, and prevent the HAIR falling off, also rapidly promote the growth of Whiskers, Moustaches, &c, Dr. C. J. B. Williams, F.R.S.: "I use and recommend your Cantharidine for restoring the hair." D. W. Roberts, M.D.: "The best stimulant for the hair that can possibly be invented." Sir W. J. Hooker, F.R.S., Royal Gardens, Kew: "Scientific, ingenious, and useful to mankind." Viscount Arbuthnot, Fordown, N.B.: "Gives me very great satisfaction." The late Earl of Limerick: "A most valuable chemical compound." J. G. Stoddart, chemist. 5, Grass Market, Edinburgh: "I never saw anything bring out the young hairs on the face so rapidly." The late Earl of Eglinton: "I am well convinced of its efficacy." J. C. G. Tice, Esq., M.D., C.B.: "I find it the best preparation for the hair I ever used." Mrs. Park Pittar, 16, Kensington-park-gardens: "At once stopped her hair from falling off." Post free, 3s. 6d. and 5s.—Laboratory, 72, Hatton-garden, London.

Original Communications.

ABSTRACT OF A PAPER ON "STATE MEDICINE,"

By J. W. RUMSEY, F.R.C.S.

(Read before the Thirty-fifth Annual Meeting of the British Medical Association, held in Dublin, August 8, 1867.)

Mr. Rumsey said—Not many years ago, state medicine in England was treated, even by well-informed persons as a mere idea—a speculative theory—or, at best, a German innovation. Its objects were not understood; even the very meaning of the word was dark. His present purpose was to call attention to some of the more remarkable effects and anomalies of our public arrangements, and then to show how the primary objects of preventive and legal medicine might be attained. The first point to which he would refer, and which he believed to be at the very root of the matter, was our public system of inquiry into and the causes of mortality. The two great branches of state medicine sprung from the same root—scientific inquiry. If the results ascended through a well-organised stem of record, they would expand into a noble tree of knowledge, the fruits of which might be safely used to amend the administration of justice, to improve the social condition, and to prolong the lives of the people. After reviewing the growth of vital and medical statistics during the last forty years, he proceeded to say that the simple fact of death was not accepted by the Court of Chancery or the Bank of England as legal proof of any reported death, while as to the so-called "cause," the greatest possible discrepancy existed as to the matters reported, the persons who reported, the nature of the report, and the subsequent use made of it. In a multitude of cases neither the cause nor even the manner of death was returned. As to medical duties and liabilities, there was an almost entire absence of necessary safeguards in signing a medical certificate; and there was reason to believe that the cause of death had sometimes been certified by a too confiding practitioner when the patient was still alive. In his opinion it was the duty of all members of the profession to refuse to certify any facts which they had not ascertained on clear undisputable evidence. He would now pass on to the second branch of his subject—the medico-legal—that touching coroners' inquests, and that which might be more strictly called forensic medicine. While he had no desire to undervalue those legal verdicts in cases of sudden, doubtful, or violent deaths, he thought investigations of the kind were far more perfect and trustworthy under the Scottish system, in which an official inquiry, initiated by the Procurator-Fiscal, took the place of our coroners' inquest. The recent alteration in the law tended to diminish the number of necessary inquiries; and Dr. Taylor was of opinion that the system afforded no certainty for the detection of crime, no protection to those who were wrongly accused, and that, in some cases, it screened a criminal by a verdict based on an imperfect inquiry, in which the important medical facts were misunderstood or misinterpreted by the jury. The additional expense for a post-mortem examination led to the refusal of the order for such inspection. Cases were recorded in which deaths by poison or violence were thus concealed, the facts coming to light some years afterwards. They might conclude with Dr. Taylor that every inquest in which there had been no medical inspection of the body was a vain mockery. If an inspection was not required, an inquest was unnecessary. Many persons who held the office of coroner had neither medical nor judicial qualifications for the proper discharge of its duties; no preliminary test of ability or special qualification being required. These abuses could not remain unremedied by Parliament without degradation of this ancient office. No provision was made for the employment of skilled witnesses or assessors, the usual practice in England being to select the nearest medical practitioner, and it was not uncommon for the coroner to summon his personal medical friend, whether he had forensic experience or not. He next referred to the anomalous position occupied by the members of their profession, when subpœnaed to give evidence in courts of justice, where, unfortunately, from the circumstances in which they were placed they became partisans, and while they desired to state the truth they did not do so in one point of view, their testimony being such as to serve the cause of their patients. In the next place, the lecturer alluded to the sanatory department of public medicine, adding that comparatively few officers of health who were appointed for this purpose to English towns and parishes beyond the metropolitan boundaries, rarely, if ever, found any correspondence between the limits of their districts and the territorial divisions of the country, in which the great facts of population, mortality, and reproduction were collected and returned under the Census and Registration Acts. This was not the case in Ireland, where the organisation for medical relief was made the basis of areas for sanitary administration, and these again identified with registration districts. There was an utter absence of any check against the appointment of imperfectly qualified persons as officers of health, nor was any special qualification prescribed for this officer, and there was a total absence of any general regulations for defining the duties, terms, conditions, and relations of the medico-sanitary appointment. Adverting to the remuneration of those officials, he observed that Dr. Mapother received for his arduous and valuable labours the munificent remuneration of four-sevenths of a farthing per head on the population of his district; yet, if his advice were utilised, as it deserved, not less than ten years would be added to the average duration of life of every inhabitant of this metropolis. In his opinion the amount of salary in each case should be subject to general regulations, or to the approval of a certain authority. In conclusion, he drew attention to the result of the late attempt to report on the question at Birmingham, where a number of resolutions were passed, and urged the adoption of some decisive measure in support of the proposition then brought forward by Dr. Farr.

ON IDIOPATHIC ABSCESS OF THE BRAIN.

By LORY MARSH, M.D.

(Read before the Thirty-fifth Annual Meeting of the British Medical Association, held in Dublin, August 9, 1867.)

Instances of abscess occurring within the substance of the brain are sufficiently rare, under any circumstances, to claim our careful consideration. Cases in which the abscess has resulted from constitutional causes, altogether apart from external injury, are still more rare; and the case which I shall have the honour to bring before the Association presents many points of special interest.

The patient was a gentleman, thirty-five years of age, engaged in extensive practice as a solicitor, very regular and temperate in his habits, whose family were remarkable for longevity, and amongst whom there was no trace of any hereditary predisposition to strumous or other constitutional disease. Two years after his death his mother became the subject of cancer, of which I counted 150 tumours on her body at one time, varying in size from an egg to a small pea. She died from the effects of internal cancer, at the age of seventy-two.

Nothing further occurs in the family history of this particular case about which it will be necessary to occupy the time of the meeting. The personal history of the patient claims a little closer attention. He was, from boyhood upwards, a hard-working, plodding fellow, who, at the age of twenty-seven, had by his own exertions placed himself at the head of a very large practice as a lawyer. In his progress nothing particular was observed pointing to any injurious effect on his mental or physical condition. He had done above an average amount of honest hard work, had lived temperately, and was remarked upon as a man who had engaged in the battle of life more vigorously and

with less injury to himself than the generality of his fellows. In June, 1863, a circumstance occurred which for the first time caused him to consult me respecting his health; the only occasion on which he had previously required medical attendance during his recollection was several years ago for an attack of ophthalmia. When he consulted me he stated that a few weeks previously he had taken his brother-in-law to London for the benefit of his health, and, whilst away at an hotel, his relative was suddenly seized with symptoms of insanity, and in the middle of the night he burst into my patient's room in a condition of raving madness. Assistance was obtained as soon as possible, and he was removed to an asylum, where he died in the course of a few days. My patient sustained no physical injury of any kind from his brother-in-law except the severe shock which such a frightful circumstance was calculated to produce. If he evinced one mental qualification stronger than another it was a remarkable self-possession, the exercise of which enabled him to control his own feelings whilst he kept a check upon the maniacal frenzy of his relative.

It was after the funeral of his brother-in-law, and on his return home, that he requested me to visit him. He complained of feeling completely "unstrung;" had no relish for his business, in fact, felt an incapacity to engage in it; whereas, formerly, the more intricate and complicated the business, the more pleasure he had in grappling with it; whilst now, the thought of a difficulty frightened him, and he became nervous and excited at every little disturbing cause. His temper, usually wonderfully under command, was noticed to have become irritable. His sleep was broken, and he was often obliged to get up in the night and walk about his bed-room, to relieve the restlessness in his legs, which he described as "bone fidgets." He made no complaint of pain either in his head or any other part of the body. No alteration was observed in his general health, except that his appetite was not quite so good, and he complained a little of occasional nausea. In appearance he was greatly changed; he was pale, his eye to some extent had lost its lustre, and he had an anxious and careworn expression, at the sametime, he expressed a conviction that he had never been the same man since the occurrence of his brother-in-law's insanity.

Looking upon his condition as due to severe mental shock and subsequent exhaustion, I prescribed a tonic and restorative treatment, and ordered him away from home for change and rest. Acting upon my advice, he went with his family to the sea-side, from which he appeared to derive some slight temporary benefit. On his return, I continued occasional attendance upon him. He complained more or less of a continuance of the same symptoms; and, fearing he was becoming somewhat hypochondriacal, we endeavoured to rally him as much as possible, and tried to induce him to take a hopeful view of his case. The effect of the treatment and general management was so far successful that he was able to apply himself to the duties of his profession, until March, 1864, on the 24th of which month, whilst settling some law business, he was suddenly attacked with the following symptoms:—Slight numbness down the right arm, and a sensation as though a piece of leather was interposed between the fingers, slight faintness, and an inability to articulate distinctly. A glass of wine was given him, and in a few minutes he recovered sufficiently to complete the business upon which he was engaged. The next day, whilst engaged at his office, he had two more attacks, the same as the one above described, and, on the second day, whilst similarly engaged, he had a much more decided one. He was, as before, slightly faint; complained of numbness down the right arm, with the leathery feeling between the fingers, and was also unable to articulate or write distinctly. For instance, he wanted some water, and failing to be able to pronounce the word, he tried to express his wants in writing, and was unable to spell the word water correctly, or even his own name. About ten or fifteen minutes after the commencement of the attack, he was apparently quite well, and I accompanied him home to his house, a distance of about a mile. He did not again return to his office, but employed himself about his garden, and drove out every day, seeming thoroughly to enjoy the relief from business. His health appeared to improve, and his spirits became much more buoyant. It was arranged he should go on the Continent for six months, to try the effect of a long period of rest, combined with entire change.

On the 15th of April, whilst arrangements were being made for his leaving England, he had another attack, which occurred under the following circumstances. He was talking to his gardener respecting the removal of the trunk of a tree, and having got half through his instructions, he was unable to complete the sentence. Mortified and annoyed at what he described as so much like the act of a fool, he returned to the house, (a distance of about 100 yards), by which time the attack had entirely passed away, and he could talk as fluently as ever. I saw him shortly afterwards, and noticed, for the first time, that the upper lip on the right side drooped a little, and that the saliva collected slightly in that angle of the mouth. It is worthy of remark, that up to about twenty years of age, he was such a fearful stammerer, that it was almost impossible to hold any conversation with him. This defect, however, he had entirely overcome, and had not, for many years, shown the least disposition to a return of it. At first it was suggested that the difficulty he experienced in articulating during the attacks to which he had recently become subject, might depend upon a temporary arrested nervous power, similar to that which caused him to stammer, especially as he had no impediment in his speech, except when the attacks were upon him. Although he only had four attacks during the same number of weeks, and these of so slight a character, the symptoms nevertheless acquired importance from the fact of their progressive character.

On the 23rd of April, just one month after the first attack, he was seized whilst in bed, with the most fearful pain on the left side of the head I ever witnessed. The pain was somewhat paroxysmal in its character, though never entirely absent. It was accompanied with rigors, vomiting, and the ordinary symptoms of irritative fever. The right arm lay comparatively motionless by his side, and ultimately the paralysis extended to the right half of the body. The pupils, especially the left, were dilated and fixed. The urine was passed at longer intervals, but was never found to be saccharine in character. His symptoms gradually deepened in intensity, and he died in a state of profound coma, on the 30th of April, thirty-four days from the commencement of the attacks. The case was attended with me, during a portion of its progress, by Dr. Ransom, and Mr. Joseph Thompson, and two days before his death Dr. Gull joined us in consultation.

A post-mortem was made thirty hours after death, in the presence of Dr. Ransom and Mr. Joseph Thompson, and the following notes were taken at the time:—Weather mild; body commencing to be decomposed; very slight vascularity of the scalp; calvarium healthy; dura mater externally healthy; on being removed, and the pia mater exposed, the surface of the brain was observed to be drier than usual, and the convolutions a little flatter and paler on the left side than on the right. Pia mater more vascular on the right than on the left side; very slight sub-arachnoid effusion on the left side, which was softer than the right, having an obscure feeling of fluctuation. On removing the upper portion of right cerebrum, the grey and white matter was found normal as regards colour and consistency. A horizontal section on the left side, three-quarters of an inch thick, exposed a slight prominence in the substance of the brain, near the surface, about the junction of the posterior and middle lobes, having a layer of yellowish softening around it, a part of which was removed by the section. On cutting a little deeper there exuded a dirty yellowish-green puriform fluid (not fœtid), which was evidently contained in a cavity having well-defined vascular walls. On making a deeper section there flowed out a good deal of clear fluid from the right lateral ventricle, about three or four drachms

in quantity. The plexus choroides and inner surface of the right ventricle were natural in appearance. The internal convolutions extend over towards the right side in a bulging manner. On opening the left lateral ventricle, its contents were less in quantity than on the right side, but similar in character. The corpus striatum and thalamus were pushed rather more towards the centre. External to these ganglia there is a trembling of structure, probably indicative of some fluid or softening. No further disease on the right side. On removing the brain and examining its base, the vessels and membranes seem healthy. An average quantity of bloody serum remained in the occipital region after the removal of the cerebrum, cerebellum, &c. The cerebellum, pons varolii, and medulla oblongata healthy. There is absolutely no trace of scrofulous or other deposit at the base of the brain, on the membranes, or elsewhere. A transverse vertical section was made across the abscess and junction of the corpus striatum and thalamus, when it was found that there were two or more irregular sinuous abscesses near each other, surrounded for a considerable distance by pale yellowish softening; the softening approached very near the surface of the convolutions. All the abscesses put together were about the size of a walnut. The substance of the corpus striatum and thalamus was not involved in the abscess, although the softening, the limits of which were not well defined, probably was. The total area occupied by the softening was about the size of a hen's egg.

Careful examination of the bones and membranes covering the base showed no trace of disease. The dura mater was stripped from the temporal bones, which were found to be healthy. Sections through the pons and medulla showed no disease. The lungs were full of air and did not collapse, everywhere crepitant, soft, and elastic, not a trace of consolidation or deposit anywhere; some effusion, about half a pint. The heart was soft and flabby, the valves were healthy, the muscular walls of an average thickness, and the cavities of normal dimensions. The liver healthy. No enlarged mesenteric glands discoverable, or any along the spine. The kidneys, and rest of the viscera, perfectly healthy. Nothing further was observed upon the most careful examination.

The portion of the brain in which the abscess was situated was sent to Dr. Gull for examination, who concurred in the opinion as to the nature of the case.

All pathologists agree in the extreme rarity of abscess within the brain, apart from physical injury, and not the result of secondary deposit. Dr. Gull, in an elaborate paper upon "Abscesses of the Brain," in the third volume of the third series of the Guy's Hospital Reports, says—"a recent writer admits the occurrence of idiopathic cerebral abscess;" in reference to this opinion Dr. Gull remarks, "I suppose he (alluding to Lebert in his Archives of Pathological Anatomy) means no more than abscess whose origin is unaccounted for, since we have no evidence of any such intrinsic perversion of the nutrition of the brain as leads to suppuration. The nearest approach to such a result is in scrofulosis, but then only where the scrofulous deposit acts as an extraneous substance upon the tissue in the same manner as an hydatid cyst; in neither of which cases can the suppuration be considered idiopathic." In another part of the same paper Dr. Gull adds, "If it be true, as I believe it is, that with the exception of suppuration produced by scrofulous deposit, idiopathic abscess of the brain does not occur, and that with the exception of that which follows direct injury, it is a secondary result of the suppurative process in some distant part, or of chronic disease about the head, then it is obvious that a scrutiny of every organ is the first step in the diagnosis, or that, at least, without which the diagnosis cannot be completed."

Undoubtedly secondary abscess of the brain, when met with, is frequently associated with disease of the ear or nose, or with scrofulous deposit in some part of the body, in which latter case, by a species of metastasis as it were, suppuration is observed to take place in the cerebral substance.

Dr. Gull mentions a case, as having occurred in the practice of Mr. Bottomley, of Craydon, in which an abscess the size of a small orange was found in the posterior part of the middle lobe of the cerebrum on the right side. This case cannot be admitted as one of idiopathic abscess, because the patient was subject to nasal polipus with a mucous discharge from the nostrils, and unfortunately no examination of the interior of the nose or of the viscera of the thorax or abdomen was made at the time of the post-mortem, consequently it is but right to infer that this was a case of secondary abscess.

Keeping these facts carefully in mind, and fully recognising their important bearing on the present case, our search during the post-mortem was of the closest and most careful character, still not a trace of anything pointing to a primary cause of the abscess could be discovered. I am bound, therefore, though opposed to so careful and close a reasoner as Dr. Gull, to regard the case I have described as one of idiopathic abscess, dependent upon perverted nutrition, originating in the mental shock sustained by the outbreak of his brother-in-laws insanity.

At the consultation, which took place upon my patient, two days before his death, I expressed the opinion that he was suffering from an abscess somewhere in the left hemisphere of the brain. I was led to arrive at this opinion, unsupported as it appeared to be by facts, and, indeed, opposed to experience, from a consideration of the following circumstances. The paralysis is of the right arm, to a great extent indicated the locality of the disease, which might have depended upon a diseased condition of the blood-vessels *per se*, resulting in subsequent rupture, or might have been due to the presence of a tumour making its way towards the surface.

The early history of the symptoms could not be explained satisfactory upon the supposition of disease in the blood-vessels, neither could the suddenness and violence of the pain, the severe rigors and irritative fever that followed, be accounted for to my mind by the presence of a tumour with surrounding softening. The only remaining conclusion was, that acute suppuration was the cause of the mischief.

I have purposely avoided occupying the time of the Association with any account of the treatment adopted in the case under consideration, for a Lebert says, "There is no recorded case of cerebral abscess undergoing the process of cure." It becomes, therefore, a matter of but slight importance what form of treatment is adopted in a case so hopelessly certain in its results, so long as that treatment is in accordance with the recognised principles of our art. Exploration of the substance of the brain, even though a tolerably accurate diagnosis could be arrived at, would not offer a sufficient chance of success to counteract the uncertainty which must at all times surround a case enshrouded in such great obscurity. Even could we succeed in striking the abscess, its progress would necessarily add to the fatal character of the disease. All cerebral abscesses take the direction through the organ where the least resistance is opposed to their progress, and thus establish a labyrinthal maze into which the recourses of our art can find no entrance.

TREATMENT OF DISEASED JOINTS BY ESCHAROTICS.

By FREDERICK KIRKPATRICK, M.B., F.R.C.S.I.

(Read before the Thirty-fifth Annual Meeting of the British Medical Association, held in Dublin, August 9, 1867.)

I AM permitted the honour of addressing you, sir, and the Members of the British Medical Association, upon the subject of diseases of the bones and joints, principally with regard to a new mode of treatment by incision, and the deep introduction of caustic, (the potassa c calce,) into the cancellated structure of the articulating extremity of the bone in the incipient stage, or that of inflammatory congestion, and into the joint itself in the very advanced

periods. I believe that the present era of the Profession is peculiarly apt for the consideration of this subject, inasmuch as the literature of this portion of surgery is daily becoming more and more unsettled and contradictory, some surgeons of highest authority advocating early operative interference, whilst yet the constitution is unimpaired by the exhausting progress of disease; other distinguished men putting their faith in rest, with proper mechanical adjustment, and advising that patient trust should be placed in the healing operations of nature.

Between those contrasted extremes every variety of opinion and practice may be found to prevail, as boldness excites to action, or caution inclines to delay.

The statistics of conservative surgery, more particularly of the great revived operation of excision of the knee-joint, are the reverse of satisfactory; the high expectations formed from the successful cases have not been fulfilled by a sufficient percentage of cures, and in many instances the reported cures have not been permanent.

In the last work on joint diseases, published this year by Mr. Holmes Coote, of Bartholomew's Hospital, the following conclusions are arrived at, based on the statistics of Dr. Hodges, of Boston:—"Considering the mortality after the operation, excision for hip disease does not merit a very favourable verdict. Excision at the knee, although occasionally yielding brilliant results, is an operation to be practised with great reserve. Excisions at the wrist-joint being followed by a large proportion of failures, and when successful, the usefulness of the hand being so limited, are operations not sanctioned by sound judgment or conservative surgery. Operations on the foot for strumous disease, usually yield unsatisfactory results."

Dr. Hodges, of Boston, in his "Essay on the Excision of Joints," observes:—"Out of a considerable number of cases, one-third died, and more than one-third are known to have failed." I repeat then that a period has arrived when doubt and uncertainty pervade this most important department of surgery, and it has become a question as to whether there was not a greater saving of human life, when early amputation was the rule, than in the interval that has since passed over. It is also especially worthy of remark, that excision has rarely, if ever, been performed in private practice.

At the commencement of his magnificent address at Chester, Mr. Bowman, that great benefactor of his race, called surgery "the hands of God, the human hands." I may be permitted to add, hands never to be put forth to the execution of any operation, but when their possessor can say he would himself consent to its performance were he the patient. I believe that the rigid application of this golden rule in surgical ethics, would very much limit the future performance of operations for excisions, save only at the elbow-joint.

In the surgical charge of the North Dublin Union, the largest chronic hospital with one exception in this country, I have had, during the last twenty-five years, ample opportunity of judging of the effects of rest in the treatment of those affections, and the result of my experience has been most unfavourable.

A certain amount of success may be looked for in the treatment of the upper classes, where the purest air, the best nourishment, the most approved mechanical appliances, together with the means of easy locomotion, can be commanded; but, with the lower classes, I have found that the treatment by rest has been a history of failure; disease spreading from bone to bone in the smaller articulations, and before the consolidation of a large joint could be completed, organic disease having, in general, invaded the liver, or some of the other internal organs.

This unsuccessfulness forced me some years ago into the discovery of this treatment by cauterization which, I propose. Having often remarked the healthy reparative action that followed the use of the potassa c. calce in sinuses in the groin, neck, and axilla, I began to introduce it into fistula leading down to diseased bone, at first with caution, then more boldly, and finally disregarding Sir B. Brodie's strong injunctions against letting potassa fusa enter a sinus, I proceeded to carry its action deeply down, converting the small contracted painful orifices into large funnel-shaped openings, and bringing the carious bone into view, and within reach of the further application of the caustic. In this manner, several cases of disease of the carpus and tarsus, and of the flat and superficial bones, were successfully treated, the caustic being reapplied at intervals of a few days, to keep the orifices freely open until the carious bone had disappeared, or was covered over with firm granulations.

In a similar manner, several cases of chronic necrosis were treated, the caustic being very freely used, destroying all foul undermined integument, and leaving, after the removal of the sloughs, large clean circular openings, more than an inch in diameter, and extending deeply down to the sequestrum, into contact with which the caustic, in stick and powder, was freely brought.

In this manner, two cases of necrosis of the fibula, very similar to each other, in which numerous openings led down to diseased bone, and where the patients were reduced to the lowest state by years of suffering, were perfectly cured within six months.

In a case of necrosis of the heel in a delicate lad, who was deformed by the effects of an old hip disease, a caustic perforation was made at each side of the heel, and the powder was brought into contact with the dead bone, until it was so removed that a catheter was passed quite through the heel, no inflammation or constitutional disturbance having been caused or excited.

I can speak with the utmost confidence of the application of this remedy in all such cases of caries affecting the superficial bones.

The caustic perforations may be multiplied in proportion to the extent of the disease, respect being paid to important nerves and vessels, and care being taken not to destroy sound structure, or periosteum beyond the limits of the diseased surface of the bone. Before I speak of the application of this remedy to the arrest of the early stage of joint disease, I may be permitted to allude to the important question as to the structure which is first attacked.

My own opinion accords with those authors who believe that in the great majority of cases the disease commences in the cancellous structure of the heads of the articulating bones. That there are rare cases where it begins in synovial membrane or cartilage, and mixed ones which, seen at a late period, may perplex diagnosis, I fully believe; but I consider that those instances where the fons et origo maliarises in the bone, preponderate so enormously that, as a rule of practice, it cannot be too strongly insisted upon. My own opportunities of obtaining pathological evidence have left me without a doubt on the subject, and the practice which I propose is based upon that conclusion.

In Sir B. Brodie's great work on the joints, he recognises the fact of the frequent origin of disease in the cancellous structure, and he describes the heads of the bones as distended, with a reddish medullary fluid, then softening of the tissue, and finally suppuration—the matter either forcing through to the cavity of the joint, or reaching the surface at some position more or less remote; but whilst he thus clearly recognises the cause, and graphically describes the disastrous effects, he forbids the remedy, and strongly cautions against an early or premature opening, although he had himself with success trephined the heads and shafts of the long bones in cases of painful and circumscribed abscess.

That he attempted to give relief in a similar manner in those cases of acute articular osteitis which he so circumstantially describes, is more than probable; and I therefore infer that his caution against the early opening of an inflamed bone, was founded on his experience of ill consequences that followed such a proceeding.

Notwithstanding the teaching of this great authority, I venture to propose interference by operation at the very earliest moment that congestive inflammation of the head of a bone can be fairly diagnosed; and I state with confi-

dence that a perforation made into the cancellous structure, if freely cauterised with the potassa c. calce, will be followed with relief from pain, and that the inflammation which ensues will be only such as is attendant on and accompanies reparative action.

The caustic tunnel may be made at once by cutting down on the bone and piercing the compact tissue with a strong knife, trochar, or small trephine, and then freely cauterising the full extent of the perforation ; or, in less acute cases, a small eschar may be first made, the centre of which being incised, the caustic can be introduced, and, by combining its action with the knife, the tunnel can be carried deeper, from day to day, in a gradual manner. By means of this combined caustic perforation, I succeeded in arresting disease in its first onset in the head of the radius in the case of a young man, aged twenty-four, in the year 1861. Since that time I have tried it with success in several cases of incipient disease, in carpal, tarsal, and other superficial bones.

I perforated the tibia above the internal malleolus in several instances with curative results, also the great trochanter, in cases where its structure, or that of the head and neck of the femur, was the seat of osteitis, the cavity of the joint being yet unaffected.

On the 26th of last April I exhibited a young man at the Surgical Society of Ireland, into whose trochanter a caustic tunnel had been inserted on the 22nd of March preceding, and which was still freely open. The wasted buttock, obliterated fold of nates, and emaciated state of the entire limb, still existed to proclaim the nature of the disease ; but all pain had ceased, the motions of the joint were in a great measure restored, and he walked about before the members of the society without lameness, although for three months previous to the operation his thigh was flexed, he had constant pain in his hip and knee, and he could not admit abduction or any extended motion of the limb. This patient took his discharge to work on the 11th of May, the contour of the limb being almost restored to its natural fulness, and his general health quite recovered.

Although strongly recommending this treatment for the early stages of acute articular osteitis, and also for the very advanced periods when caries is established, or when a whole joint is converted into a foul suppurating cavity, my experience does not warrant me in advising the practice so strongly in the intermediate periods, where the head of a bone may be the seat of a diffused suppuration, possibly communicating with the joint itself. The caustic, I fear, in this condition of parts could not extend sufficiently to protect from the constitutional disturbance and risk of pyæmia that might follow.

The principal merit I claim for this caustic treatment is, that it is a powerful, and, at the same time, the safest means of correcting nature where she is manifestly in error, and of assisting her operations where they are directed aright. And here, sir, I have the boldness to start from out the well-worn professional groove of bestowing a blind admiration upon the proceedings of nature, as seen in her efforts to restore and repair diseases of bone. Instead of the vis mediatrix, which is so perfect, and to be relied on in many of our ills, I assert that she exercises in those affections a vis inimica, a vis perniciosa.

From the first onset of inflammation within the cancellous structure, all through the various destructive processes that ensue, she is engaged in hemming up, and confining the engaged bone, and perpetuating its diseased state, and her reparative operations only commence and become effective when, either by man's art, or by her own late remorseful ulcerations, this imprisonment at the surface is interfered with, and in a greater or less degree removed.

The highest art then of the surgeon is demanded to counteract and remove her mischievous operations from without, and to hasten, open up, and make way for her all powerful reparative actions from within. I am fully convinced that this interference can be more safely and effectually attempted by the combined action of the knife with cauterization, than by the knife alone, and I commend the treatment to my professional brethren with the greatest confidence, earnestly hoping that they will give it a fair trial, and that it may be attended by the same measure of success in their practice, that it has been in my own.

PAPERS ON DERMATOLOGY—No. VIII.

SCABIES.

By T. W. BELCHER, M.A., M.Ch., and M.D. Dub., B.M. and M.A. Oxon.

FELLOW AND CENSOR OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS; PHYSICIAN TO THE DUBLIN DISPENSARY FOR DISEASES OF THE SKIN; &c.

(Continued from 7th August, 1867—page 128.)

CASE 1.—M. M., a healthy-looking girl, aged 14, was admitted at the Dispensary for Diseases of the Skin on the 30th of July, with scabies of a vesicular character on various parts of the body, but particularly on the hands, and between the fingers. She had all the well-known symptoms of scabies, and attributed the attack of that disease to the cause almost invariably assigned as an excuse for its appearance, viz., sleeping with some one "from the country." The girl was tolerably clean in her clothing and personal appearance, and the disease was only of a few days' standing.

Treatment.—I desired her to take a hot bath ; to wash the body all over with soft soap while in the bath ; to rub in for half-an-hour a sulphuret of calcium lotion, which I shall notice more particularly below ; to wash off the residuum of the lotion, and put on clean under-clothing. This she did, and at her next visit she was, to all appearance, perfectly cured.

Case 2.—J. M., sister of the preceding, and about four years her junior, appeared at the Dispensary for Diseases of the Skin on the 2nd of August, affected with the same disease as her sister, but in a lesser degree. She contracted it by sleeping with case 1.

Treatment.—The same as in Case 1, and with a like result.

I shall now make some remarks on the disease itself :—

The word *scabies*, derived from the Latin *scabo*, is believed to be the *psora* of the Greeks ; is the *gale* of the French ; *kratze* of the Germans ; "the itch" in English ; Scottice *the yuck*; and popularly in Ireland " the Scotch fiddle." What may be its supposed connection with that prince of musical instruments, the violin, it is not easy to determine, nor is it evident why our Scotch brethren should be supposed to be particularly devoted to music of this description. It seems, however, to have been bestowed on them by "the finest pisantry in the world," as Daniel O'Connell was in the habit of calling his and my own fellow-countrymen, at a time when the semi-savage Highlandman of one-hundred and fifty years ago, as described by Sir Walter Scott, was usually presented to ignorant outsiders, as the typical Scotchman. I think scabies is the "*nethek*" mentioned in the original Hebrew of the thirteenth chapter of the book of Leviticus (verse 30.) The corresponding word in the venerable Greek of the Septuagint translators of the Levitical canon is *Thrausma.*

I shall not enter into any discussion about classifying scabies. By various authorities it is held to be vesicular, or papular, or pustular. It is by all held to be contagious —not infectious. All agree in the ordinary presence of the *acarus scabiei*, or itch insect, but some look on this as the cause, others as the effect of the disease. Some think it is always visibly present ; others that it is not always present ; others, again, that it is always present but not invariably visible.

For information on these questions, and also as regards the acarus scabiei, I must refer the reader to my edition of " Neligan on the Skin," pp. 157, &c. In Neligan's Atlas will be found good illustrations of the male and female acarus, respectively.

I may observe that, practically speaking, itch is vesciu-

lar, papular, and pustular. Neligan was of opinion that, originally, the disease was vesicular, and that papules and pustules sometimes appeared as it progressed; also, that while the occurrence of the itch insect is very constant and easily demonstrable, its presence is not necessary to or pathognomonic of the disease.

Most practical men will agree in Neligan's view. Cases of itch do not often occur except in the lower strata of society (though I have known not unfrequent exceptions to this statement); and for the most part, when the aid of a medical man is sought, the patient has so scratched and torn the disease as to render any such thing as regular classification next to impossible.

That eminent writer, Mr. Erasmus Wilson, has stated that the pruritus of scabies is a kind of tickling itching, which is said to be *pleasurable*. I have never met with, or heard of, any one who could say this from practical experience, except "the British Solomon King James I." That monarch had delicious experience of scabies, and he gets the credit of having said "that none but kings and princes should have the itch, for the sensation of scratching was so delightful." However, Lorry, the Parisian, in his great work, "De Morbis Cataneis," was not of King James's opinion, for, on p. 225, he graphically describes the itching as "pruritus enormis et scalpendi desiderium immane."

Diagnosis.—In some cases this is not so easy as might be supposed, and the distinction is important, because the treatment which will cure scabies will very much aggravate affections for which it may be mistaken. Sometimes it is mistaken for eczema, and I have seen that disease in conjunction with it; but in general, eczema does not present the conical-shaped vesicles of scabies, the discharge from eczema is more watery (unless it be eczema impetiginodes), and is accompanied by a mealy desquamation. The papular form of scabies is occasionally mistaken for *lichen;* but the absence of vesicles, and sero-purulent discharge in the latter, make the difference. In lichen, moreover, the eruption does not spread to the most common seat of itch—the flexures between the fingers. *Prurigo* also may be mistaken for scabies; but beside the difference of locality,—prurigo generally affects the trunk, shoulders, and thighs—the small black crusts produced by the scratching in prurigo are characteristic of that disease. Pustular scabies may be mistaken for *ecthyma;* but besides other distinctions, ecthyma is not usually attended with itching. The presence of the itch insect, and the contagious nature of the disease, specially distinguish scabies from all the affections just enumerated, but it may be complicated with any of them.

Prognosis.—Favourable, if well treated; if left without treatment, it shows no tendency to self-cure or wearing out.

Treatment.—Beyond all controversy sulphur, in some shape or other, is *the* means of cure. A reference to my edition of Neligan on the Skin will show the great variety of ways in which the acarus is sought to be destroyed; but to my judgment no plan is at all equal to that adopted for some years in our military hospitals. During the Russian war I served as surgeon of a militia regiment, and had a large experience of the old and new plans of treatment of this disease. Numbers of half-starved, dirty, recruits were daily joining my regiment; and were at first subjected to the old plan of being stripped naked, obliged to lie for days on the floor covered by a blanket, and greased all over with sulphur ointment. The wretched men were at the same time cut off from all communication with the outer world as effectually as the lepers of sacred history.

Soon, however, I tried the new plan, and gave some cases in point in the thirty-third volume of the *Dublin Quarterly Journal* (p. 474). The cases were uniformly successful with me, as they were with Dr. Frazer, who subsequently tried it, and bore testimony to its merits in his work, published in 1864 (p. 68).

The preparation in question is composed of a penta-sulphide of calcium, and a hypo-sulphite of lime, as expressed in this formula:—

$$3\,Ca\,O + 12\,S = 2\,Ca\,S_5 + Ca\,OS_2\,O_2$$

It is made and used as follows:—One part of quick lime, and two of sublimed sulphur, are boiled in ten of water, until the lime and sulphur are perfectly united, stirring meanwhile with a piece of wood, and decanting the mixture into a well-stopped bottle. The patient takes a hot-bath, wherein he may, but need not necessarily be, washed with soft soap; has some of this fluid rubbed diligently into his skin for half-an-hour; takes a second hot bath; comes out cured, and dresses in fresh clothing.

The last part of the process—fresh and clean clothing—is *essential*, for as the disease is notoriously contagious, it is obvious that unless this direction be attended to the patient will, almost to a certainty, contract it afresh.

PURPURIC FEVER, OR FEBRIS NIGRA.

By T. PUREFOY, M.D., Lucan.

During the Spring season of 1867, a vey remarkable, novel, and fatal form of disease occurred in different parts of this county, perhaps appearing first in Dublin. The cases, at the beginning few, subsequently increased, so that the disease assumed the character of an epidemic.

A somewhat similar form of epidemic has already been described by former writers.

The symptoms of this malady have been already so fully and accurately described, that I shall not weary my readers by a repetition of them here, as my chief object is to bring before the Profession some suggestions with regard to the origin and true nature of this epidemic, which has given rise to so much diversity of opinion amongst medical men. Fortunately, all observers seemed agreed in opinion as to the necessity of a strictly conservative and stimulating plan of treatment.

It is a remarkable fact that this new form of disease was, from its first appearance, in many instances complicated with an eruption, declared to be measles by intelligent observers, which disappeared early, whilst the livid dotting of the skin, prostration, and death quickly followed, with or without convulsions or spasms.

In one most remarkable case a young lady about eleven years of age, underwent a continued succession of symptoms, indicating alternately febris nigra, rubeola, arachnitis, and paralysis, yet finally recovered, after severe suffering during a period of several weeks.

This fatal epidemic, now best recognised by the name purpuric fever, declined in frequency and fatality in May and June, but only to usher in a very general and severe outbreak of measles, to hold, as it were, undisputed possession of the field, thus affording subject-matter for serious thought and sober conjecture or speculation as to the true nature of this epidemic.

We find records of a very similar form of disease amongst the older medical authorities, and a modern writer describes a very similar visitation which devastated the western parts of Ireland above a century ago.

All observers seem agreed that it is not identical with the "Black Death" of the middle ages, as described by Heckar.

Two leading questions here present themselves:—

1st. Is the present anomalous and fatal malady a new disease?

2nd. If so, how is it to be classified?

Want of time and ability utterly preclude the possibility of my entering into any prolonged disquisition upon this most important subject, therefore I must be content merely to record my own notions, just as they have resulted from experience and observation, to be canvassed and, as I hope, improved upon by others. During an experience of thirty-three years, wholly limited to this country, I have repeatedly observed anomalous forms of disease, sporadic in character, to precede the appearance of some coming epidemic.

These *precursors* of the epidemic, if such they be, exhibiting with more or less accuracy the leading and prominent symptoms of the supervenient malady.

About two years since, some children, in my Dispensary District, were cut off in the early summer season, by a disease which in its symptoms and progress—fever, pain of the head, vomiting, delirium, early prostration, and coma—clearly pointed out some grave affection of the brain and nervous system, very possibly cerebro-spinal arachnitis.

Upon this occasion I was led to anticipate the approach of scarlatina, and a very severe and fatal visitation of this disease quickly followed.

My experience in reference to cholera is similar.

Various anomalous forms of hepatic, and gastro-intestinal disorder, preceding each return of this fearful malady, yet betraying in their progress, some one, or more, of true choleraic symptoms—as retching, diarrhœa, cramps, spasms, and early exhaustion. The purpuric fever, or, as it is pathologically designated, cerebro-spinal arachnitis, presented, in its progress, some symptoms so much in common with these of rubeola, that the unprofessional and unbiassed observers, have, in not a few instances, set down the disease as simply measles.

In a fatal case of purpuric fever, in the child of a poor woman, lately attended by me, the mother stated that the early stage of her child's illness led her to believe that he had an attack of measles, nor was she alarmed for his safety, until the eruption disappeared, and livid spots upon the surface, cold clammy sweat, and rapid sinking, unexpectedly appeared. This boy of ten years survived about thirty-six hours. His sister, some years younger, took ill on the day of her brother's burial; the measles did not appear; retching, diarrhœa, headache, intolerable thirst, and complete prostration, constituted the early stage of her illness; rapid sinking and livid spots the second stage. Towards the close of life, restlessness was uncontrollable—the head was slightly thrown backwards, but convulsions did not occur, intellect seemed perfect, till death, which took place in twelve or fourteen hours, from the invasion of the illness.

Reasoning upon facts such as these recorded so briefly, I am led to conclude:—

1st—That every epidemic visitation is preceded by constitutional predisposition to disease upon the part of the individuals attacked, similar to the epidemic constitution of Sydenham; and

2nd—That this predisposing cause is always directly depressing in its agency. Hence, one severe epidemic, as fever, or cholera, is very likely to be followed by some other of quite a different character from its precursor, and for the spread of which the population of the infected district have, as it were, been fitted or predisposed.

May not this unusual form of disease, which has trodden in the footsteps of cholera, have been merely an abortive effort in the constitution of the sufferer to pass through the several stages of one of the exanthemata, as measles, the failure of the constitutional powers, and alarming train of symptoms, being the result of some unknown contamination of the system by the preceding epidemic.

The epidemic visitation of measles in the months of May and June has never been equalled in extent or severity since 1849, the period just following upon the widespread and devastating famine-fever of 1848. Some cases of measles were at that period complicated by cancrum oris in a very unmanageable and fatal form. I am aware of the slippery foundation upon which all conjectures and theories stand; yet I do not think that the theory now put forward to elicit the discussion of a most important subject is groundless, or altogether unworthy of consideration.

Death of Two Physicians.—At Penrith, a retired physician, Dr. Allinson, shot himself in his library, and was found lying dead on the floor. Another physician, Dr Jackson, residing in the same town, when informed of the occurrence, threw up his arms in astonishment, fell back, and expired in the arms of a visitor. Both deaths occurred in the same day.—*Standard.*

Hospital Report.

SPECIAL REPORT ON THE TREATMENT OF UNUNITED FRACTURES.

II.*

At the conclusion of our former article, which contained a general preliminary sketch of this subject, we gave a table of the results of operations performed by Dr. Bigelow, Professor of Surgery at Harvard University. The unusual success that has attended this gentleman's practice, entitles his method to further consideration than it has yet obtained in this country. We, therefore, proceed to a description of his usual mode of operating prior to furnishing farther details of the cases already tabulated.

Operation.—The extremities of a false joint should be attacked where they approach nearest to the surface, unless vascular or nervous trunks are in the way; for example, in the arm, upon the outside; a free incision being contrived in each case with especial reference to the ready exit of pus. In the arm, the musculo-spiral nerve, which is often displaced and tied by the lymph, is to be carefully looked for and avoided, and were it not for the care here requisite the bone might be exposed by a single incision. The principal bony extremities being found, the interval, which is sometimes quite irregular and interlocked, is gradually divided, and the ends turned out, the dissection being materially aided by an assistant powerfully flexing the false joint. Care must be taken to prevent the muscles being stripped from the periosteum. When one extremity is fairly exposed, a crucial or other regular incision is made in the ragged callus overlying the periosteum at its tip, which should be then seized by strong-toothed forceps, and efforts made to tear it out of the rugous inequalities of the formerly inflamed bone. As the flaps begin to yield, the terminal adhesions are detached, and the sound bony shaft is reached, where the periosteum is easily stripped from the bone, requiring great care lest the shaft should be denuded higher than the intended section.

The soft tissues being now protected by spatulæ, or flexible strips of copper, the end of the shaft is removed by a common saw, the length of this fragment being determined by the amount of periosteum it has been necessary to detach. Half an inch of good cylindrical periosteum, with half an inch more of ragged tissue hanging at its extremity, has usually covered from three quarters to an inch and a half of bone. Perhaps half an inch of sound shaft, with an irregular or conical extremity varying in extent, is a good rule for the excised piece in most cases. The other extremity is now to be turned out and treated in the same way, and this terminates the dissection.

There now only remains the wire to be inserted. For this purpose holes are bored in each extremity with a good bone drill, larger than the wire, at a little more than half an inch from the end, and through one wall only. A pure silver or plated copper wire is inserted from without inward in one end, and inversely entered in the medulla from within outward in the other. The ends are brought together accurately, and the wire twisted long enough to protrude at the external wound. It is now only necessary to bring the edges of the wound together, leaving an aperture large enough to allow of the free escape of pus, and then to apply a suitable apparatus for retaining the proper position of the parts.

The apparatus for the humerus used by Professor Bigelow, consists of a firm concave splint of iron and leather, made to fit the top and outside of the shoulder as low as the axilla, and thence horizontally to the neck. This is secured by a strap around the opposite axilla. A similar gutter receives the elbow and fore-arm flexed at a right angle; the two are united by a narrow iron strap on the

* Gentlemen who may be willing to furnish reports of cases of ununited fracture to be included in this special report, will oblige by forwarding them immediately to the Editor of the Hospital Report Department, 20, King William-street, Strand, London, W.C.

back, and another on the front of the humerus, adjustable as to its length. The splint can be thus shortened when in place, so as to keep the extremities of the bone in contact, and nearly immovable, in spite of the great leverage of the arm upon the wire, while the dressing can be readily applied in the open interval, without disturbing the apparatus.

For the thigh, a pasteboard splint is moulded to the anterior aspect of the thigh and leg, and then stiffened with dextrine, an interval for the wound being left. The whole limb is then secured to this by bandage ; and surmounting the whole, a Smith's anterior splint is applied, by which the leg is suspended from a railway on a framework over the bed.

Professor Bigelow employs water-dressings at first, and poultices or oakum to absorb the discharge afterwards. He keeps the patient in bed for several weeks, in fact till some stiffening has taken place, after which he prescribes fresh air as an invigorating and osteoplastic agent, together with a diet as generous as the appetite will bear, and not unfrequently the use of phosphates.

The wire is allowed to remain in place until the bone is firmly united, generally during several months ; in no case has evidence of any ill effects from its presence been observed either in producing necrosis or undue inflammation. In some cases it has remained quietly in its place after the arm was in use. In one instance it remained for two years.

To remove the wire, the loop is divided with cutting pliers, and forcibly drawn out ; hence an advantage in flexible wire. This loop is sometimes quite superficial, but in other cases is so deep as to require an incision to reach it.

It has been observed that a partial stiffening, dependent on the inflammation of the soft parts, sometimes takes place in a few weeks, but the bone afterwards becomes gradually loose if the periosteum fails to do its duty.

The one great point in treatment, on which Professor Bigelow has uniformly insisted in his Lectures, is the prevention of abscess, or, in other words, the early and free evacuation of imprisoned pus, by large and dependent incisions, which here, as elsewhere, are less injurious to the tissues than the burrowing of pus. Again, the formation of an abscess is always attended with a certain amount of fever, and the consequent loss of appetite and debility, may materially interfere with the reparative process.

From this circumstance the first signs of inflammation should be vigilantly watched for, and an opening should in all cases be made as soon as any evident pointing occurs.

The most favourable cases for the operation are those in which the patient is in vigorous health, and the bony extremities are of the natural size. In chronic cases the ends of the bone are often tapered from a sort of local atrophy. On this account the incisions may have to be longer, and the whole operation more formidable.

Softening of the bone from interstitial absorption may be looked upon as contraindicating the operation, since we find that the only case in which Professor Bigelow has completely failed, is one in which that unfavourable condition existed, and could not be removed by any treatment, including of course, the free use of phosphates. There is one accident incidental to some of these operations which occasionally supervenes and demands a moment's consideration. We allude to the supervention of paralysis from division of, or injury to, the musculo-spiral nerve. The paralysis will, of course, be more or less complete according to the extent to which the fibres of the nerve have been severed. As the nerve winds around the outer side of the arm it is difficult always to avoid it, and this difficulty is increased in those cases in which deformity has to some extent displaced it. Masses of indurated lymph may also enclose the nerve. It may also be inadvertently injured where so much congestion exists that the wound cannot be kept dry during the dissection. It has further been found at times concealed in a groove of new bone, in separating which it must be divided. This accident has occurred to Professor Bigelow twice. In both cases the power of the paralysed muscles was ultimately restored. It is but fair to remark that this same accident may equally occur in the course of the other operations that have been recommended for the cure of this lesion. In cases of gun-shot wound so much damage is often done to the bone that necrosis is almost inevitable. In reference to this we may remark that Professor Bigelow seems to consider his operation as almost contraindicated where there is complete necrosis, and most surgeons will probably consider other methods of treatment more appropriate to such cases.

We have now cleared the ground of the preliminary matter, and shall be able on a future occasion to enter into the details of the cases we have tabulated.

THE INFLUENCE OF WATER ON THE PUBLIC HEALTH.

ABSTRACT OF EVIDENCE GIVEN BEFORE ROYAL COMMISSION APPOINTED TO INQUIRE INTO THE CONDITION OF THE WATER SUPPLY OF LONDON.

We offer no apology for devoting a large portion of our space to the following very valuable testimony of Dr. Letheby on the "water" question. There are few towns in the United Kingdom of any numerical importance to which the purity of their water supply has not been more or less a matter for earnest consideration. In London several leviathan schemes for water supply, for the consideration of which the Royal Commission have been proposed, and in Dublin a sum of nearly half a million has already been spent in obtaining water on the advantages of which Dr. Letheby's evidence throws much light and no little doubt.

We may shortly summarize Dr. Letheby's opinions as follows: —*Firstly*, he is of opinion that peaty water is not objectionable in any respect but colour, which, however, will prevent its use for drinking purposes ; *secondly*, that the most sparkling and agreeable waters which have been drunk with avidity, in spite of all remonstrance, are generally the most dangerous ; *thirdly*, that there is no evidence whatever that the present London supply is any way objectionable ; *fourthly*, that water contaminated with one-twentieth of its weight of ordinary sewage, becomes, after twelve miles transit in a river bed, as far as can be ascertained, perfectly innocuous ; *lastly*, that the outbreak of cholera in the east end of London was totally irrespective of the water supply.

3859 (*Chairman*). I am Professor of Chemistry in the London Hospital, and also Medical Officer of Health to the Corporation of the City of London.

3863. Do you know the general properties of the water supplied by the metropolitan companies, first, from the Thames Water-works above Hampton, the West Middlesex, the Grand Junction, the Southwark and Vauxhall, the Lambeth, the Chelsea, the New River (Lea springs and wells), and the East London ?—Yes, that comprises all except the Kent Water Company, which supplies a very small portion of the metropolis ?

3864. Is that water taken from the Ravensbourne ?—It was formerly, it is not now, it is taken entirely from wells, not a drop is taken from the Ravensbourne.

3865. You think there is none of the Ravensbourne water in it ?—None whatever. I suppose they have eight or nine wells, and they take the whole of their water from them.

3866. The degrees of hardness of the several waters range from about 13 to 14½ degrees. It will also show the quantity of gases dissolved in the water, the object of that being to ascertain whether the waters are well ærated or not, which is a very important consideration, in a sanitary point of view. The proportion of gases dissolved in water ranges from about 13 to 14 cubic inches, and the most that water can take up is 15 cubic inches. That shows also that the proportion of oxygen contained in the water is very large, considerably more than is necessary to oxidise the organic matter. The water is remarkably well ærated ; in fact, it is so exceedingly well ærated that we find in its passage along the public pipes or mains the atmospheric oxygen dissolved in it really does effect the oxidisation of organic matter, though the water is shut completely out of the atmosphere, which is a proof of the good æration of the

water. The quantity of ammonia in a gallon of water comes to 0·003 of a grain, which is further proof that there is no organic decomposition in the water.

3867. The total quantity of solid matter in a gallon of water ranges from 19¼ grains in the Thames at Hampton to nearly 24 grains which we find in the East London water, and of this proportion the organic matter, as determined by the process called incineration, ranges from about three-tenths of a grain in the East London water to about 1¼ grain in the Lambeth water. But this matter called "loss by incineration" represents other things besides organic matter. The conclusion from it is that the waters are not overcharged with saline matter, for the proportion is no more than is generally found in river waters running from a chalk district.

3869. There is no standard with regard to the quality of the water. It is scarcely possible to take any water which can be regarded as a standard; generally speaking, we may say that a water of over 10 degrees of hardness may be regarded as on the side of a hard water, and when below 10 degrees of hardness it may be regarded as on the side of a soft water, and so on in proportion to those degrees.

3870. Loch Katrine water is undoubtedly very soft water, but on considering a great number of circumstances connected with Loch Katrine water, as the liability of it to organic contamination, and the tendency of it, like all such waters, to act upon lead, and the circumstance that it is so frequently tainted with peaty matter, there are very important objections to its use in such a city as London.

3871. Do you think that peaty water is objectionable to health?—No, but it is so objectionable on account of its colour that Londoners would not drink it. I am satisfied, from my own experience and from the reports of Commissions appointed on the continent with regard to the water supply of Paris and Vienna, that the inhabitants of a large capital, using water for domestic and not for manufacturing purposes, would not drink such water.

3873. The last table of this series shows the composition of the pump waters of the City of London, and you will notice how much saline matter is in them, and yet so strong is the public instinct for waters containing saline matters that we could scarcely keep people from drinking those waters during the time of cholera, when such water was considered to be very dangerous, for the pumps were close to the sewers, and when to prevent their being used the handles were taken from the pumps, the outcry was so great that we were obliged to restore them.

3874. The saline matter which is contained in such waters has a tendency to give them an agreeable taste, and moreover they are generally well ærated waters; they are also free from colour, and are cool and grateful to the palate, and on that account there is as it were an instinctive liking for such water.

3876. Notices have been put upon the pumps stating, "This is a dangerous pump, and the water ought not to be drunk," and indeed the greatest pains have been taken to inform people of the fact that those pump waters ought not to be drunk, but nevertheless they will drink them.

3877. The quality of the water itself as regards its agreeable appearance, its sparkling character, its cool taste, and so on, is what gives to them a liking for such water, but notwithstanding that we have informed them of the danger of using such water, they will still drink it. Four times have I reported, and my reports have been pretty well circulated, as to the danger of the pumps of the City, and yet the public continue to use them.

3879. Having regard to those waters, and the several tests which you have yourself made, what is your opinion generally of the water supplied to this metropolis?—My opinion is founded in the first place upon the actual analysis of the waters over a long period of time, monthly analysis; it is founded in the next place upon an observation of the use of those waters very extensively, and I am bound to admit that there is no evidence whatsoever that those waters are in any way objectionable as a public supply. I am now speaking of the whole of the metropolitan waters.

3880. Notwithstanding the amount of organic impurity that is your opinion?—The organic impurities are not large in the London waters. The loss by incineration, although a grain, is not regarded as a serious quantity, because the loss by incineration represents a great deal more than the organic impurities.

3881. Have you any means of contrasting those tests which you have made with the tests made prior to the companies going up to take their supplies at a higher point?—Yes, I have. In 1851 the total quantity of solid matter in a gallon of water, taking the average of all the Thames Companies was 21·43, in 1856 it was 21·04, and in 1867 19·48. The next set of facts are the most important with regard to the organic and other volatile matter per gallon. In 1851 the chemical commission reported that the average proportion of organic and other matter per gallon was 2⅛ grains as nearly as possible. One of those chemists was again engaged in the inquiry in 1856, viz., Professor Hofmann, and he reports the quantity to be 1·31.

3882. It had improved in five years from 2·46 to 1·31?—Yes, and Professor Hofmann in commenting on that fact, and perceiving that it was common to every one of the water companies, says it is a proof beyond all question of the water having improved in that interval, and that it is not an accident-for the experiments were made on both occasions in the same laboratory and by the same people, and therefore there was nothing in those results that could vitiate or in any way affect the conclusion, viz., that those waters had notably improved between those two periods. The diminution of the organic matter cannot therefore be due to the influence of the season, nor can it be due to any difference in the mode of determining the organic matter in 1851 and 1856. The hardness is reduced also but not much. In 1851 the degree of hardness of Thames water was 14·4, in 1856 it was 13·5, and in 1867 13·3. We have therefore in this table a comparison of the analytical results on the three several occasions when there have been inquiries into the water supplied to the metropolis.

3883. You will observe that the Lambeth Waterworks water contained a larger quantity of organic matter in the year 1867 than in the year 1856?—Yes, in 1856 it was 1·03 and 1867 it was 1·24.

3884. (*Mr. Harrison.*) The East London water from being 4·12 in 1851 was reduced to 1·14 in 1856 and 0·30 in 1867?—Yes.

3891. (*Chairman.*) At the present moment I cannot perceive through the most refined chemical processes the existence of a particle of sewage in the water at Hampton where the Thames Companies take their supply.

3892. You have had your attention directed, have you not, to the fact that the river running through the town of Leicester some years ago was greatly polluted from the discharge of sewage, and that the plants and fish were destroyed for three or four miles down the river. At the end of the third or fourth mile plants began to revive, fish were seen active, and the water appeared in its normal condition?—I have examined most of the rivers in England, and this is the conclusion that has been come to not only in my mind but in the minds of all the engineers who have devoted their attention to the subject, that if ordinary sewage containing we will say nearly 100 grains of solid matter per gallon, such as our London sewage, out of which probably something like 14 or 15 grains are organic, be mixed with twenty times its bulk of the ordinary river water and flows a dozen miles or so, there is not a particle of that sewage to be discovered by any chemical processes.

3896. (*Col. Harness.*) If it did not flow at all what would the effect be?—That does not seem to make much difference. If we place water in a laboratory and stand it in an open vessel in which it is not moving at all we find, in the course we will say of something like twenty-four hours, that oxydization has taken place, and we cannot then discover it.

3898. (*Mr. Harrison.*) Taking the case of the cholera disease and the discharges from the human body being mixed up with the sewage, do you consider that any germs of that disease would be carried down in the water?—At the present moment we do not know what the germs of the disease are. If the germs of the disease be decomposing matter then I do not think that they would exist in the water; but if the germs of the disease be living matter then it is possible that they may exist in the water, but as nobody as far as I am informed can tell us what the germs of cholera are it would be premature for me or anybody to theorize as to the probability or the possibility of their existing in the water.

3900. Have you heard the opinion stated that in the case of the cholera at Southampton the disease had been conveyed by means of the sewage water?—I think it is very likely indeed, my own impression is that the matter discharged from cholera patients is the immediate agent of infection, that if you will take pains to destroy it you will prevent the disease from progressing.

3901. (*Chairman.*) You are aware that it has been alleged that the main cause of the cholera in the east of London was due to the water supply, do you entertain that opinion?—No, I entertain the opposite opinion. It was a matter of duty with me to investigate the whole of the circumstances con-

nected with the East London supply. In the first place it was supplied to the hospital to which I am attached, in the next place it was supplied to the eastern division of the city, where, as officer of health, it was my duty to look well into the matter, and in the third place I had a general interest in it scientifically, apart from any official connexion with the subject, and I was very desirous to ascertain whether or not the water had been in any way concerned in the propagation of the disease. I therefore investigated it very fully.

3902. Are there two distinct waters supplied to that district?—Yes, but I will tell you this with regard to it, there is hardly anybody who can say, except in certain parts of the East London Companies district, whether the water had come from the reservoir at Old Ford or whether it had been received from the filter beds at the Lea, which is considered to be a good water, for the water was oscillating backwards and forwards in the mains in such a manner that the engineer himself had no knowledge what water was in any main at any particular time. But on the other hand there are places at which Old Ford water, and that water alone, is supplied, namely, Stamford Hill, Upper Clapton, Walthamstow, Woodford, Wanstead, Leytonstone, North Woolwich, and Silvertown, and excepting the two last-named places there was no cholera in any of them; there was a little in Silvertown towards the end of the epidemic, but the other places were free from it, and those were the only places where we actually knew that that water did go.

3903. Dr. Farr gave evidence before this Commission to the effect that wherever this particular water was supplied, the cholera was most prevalent in that district, and that they could mark it even to the centre of the street, one side of the street being supplied with one water, and the other with another, and that the bad water was marked by the progress of cholera most distinctly throughout the district? I do not concur in that opinion.

3906. *(Sir B. Phillips.)* You do not think that the cholera was induced by the water supplied to the people at the east end of London?—I am sure it was not. I am satisfied from my inquiries that it did not do so, that it had no more to do with the propagation of cholera than the commercial gas had.

3907. You visited that particular district, did you not?—Yes, I went into it all. In one division of the City there were 62 deaths in the district supplied by the East London and the New River Companies. Now the New River Company's water is above suspicion, nevertheless, of those 62 deaths in that district, there was only a single house in which the East London water was taken; all the rest were supplied with New River water. At my own hospital, the London Hospital, we had nearly 500 people in the hospital, and they drank nothing but East London water. Those patients may be looked upon as people most susceptible of disease, but we had not a single case of cholera arising in the hospital, though we had such a large number brought in as patients.

3908. *(Chairman.)* I will take another instance, which is a very strong one, I think, in proof of the non-connexion of the water with the cholera epidemic. If this water had been charged at any particular time, with this cholera poison, supposing, for one moment that that poison were arsenic or alcohol in the water, distributed over the district, there would be some uniformity in the time of the outbreak, or manifestation of its action over the district, but a month elapsed in several of the districts and no outbreak appeared where this suspected water was being supplied. There is no coincidence of time in the outbreak, and there is no coincidence in the intensity of the disease or in its duration along that district. In the next place, people taking that water and drinking it in its unfiltered state did not get the cholera, while the cholera affected people in that district who did not take that water. At one of the city of London workhouses, the City of London Union Workhouse which is in the Bow Road, they did not take a drop of the East London water, but drank the water from their deep well. I receive, and did receive every week, a return of the progress of disease in that workhouse, and they were decimated by the cholera. Another workhouse, namely, the East London Union, has its workhouse at Hackney where they do take that water, there was not a case of disease there; and then at Stamford Hill, and those places where no other water but the Old Ford reservoir water was pumped—for they have a special power to send it to those places—there was no cholera. I say, therefore, it is a very hasty conclusion, because of the coincidence of the outbreak of disease in that locality with a certain water distribution, to say that the water has been the cause of the disease.

3909. You are not connected, are you, with any water company?—Not at all.

3910. *(Mr. Harrison.)* In the case of the previous outbreak of cholera, in 1854, was there any distinct connexion between the cholera and the water supplied then?—There was, as it appears from Dr. Snow's investigations, and those investigations were, I admit, to my mind so conclusive, that I had no doubt that the foulness of the water at that time had a good deal to do with the propagation of the disease. But it has been found since that the company's pipes were running in such an intricate manner in the district that the companies themselves did not know which houses they supplied with water.

3913. There can be no doubt that the constant supply is a very advantageous thing to the public, chiefly because they would get their water cooler, more grateful, less liable to the pollution to which it is now subject after it is delivered by the water companies.

3915. Soft water is very prone to the absorption of gases, almost immediately, but hard water is not, from the circumstance that hard water contains such a large quantity already dissolved in it that it shuts out, as it were, the other foul gases.

3918. *(Chairman.)* Where the water supplied to the towns is over 10 degrees of hardness, which I look upon as on the side of a hardness, the mortality is only 22·2 per 1000 of the population, whereas in all the towns with soft water, that is with water under 10 degrees of hardness, the mortality is 26 per 1000, and with the metropolitan water it is 23 per 1000. I do not pretend to say that the quality of this water has had anything to do with the mortality, but there is this important fact, which comes from the examination of the table, that certainly soft water does not improve the health of the people, and that many of those towns are very comparable. I take Sheffield and Birmingham to be very comparable with regard to the character of the inhabitants, but look at the mortality in the two places. Birmingham has nearly the hardest water that we have in England, and Sheffield has one of the softest waters, nevertheless the mortality of Birmingham is only 24 in the 1000, whereas you will find that the mortality of Sheffield is 26·2 per 1000. I do not mean to say that the water has anything to do with it, but it shows that there is no evidence of soft water so benefiting the health of the people as to reduce the death-rate.

3921. *(Sir B. Phillips.)* The smallest amount of mortality in this table appears to be at Croydon?—Yes; and it is a hard water they have at Croydon.

3927. *(Mr. Prestwick.)* What do you consider to be a sufficient supply per head of the population?—I think that the experience of engineers generally accords with my own experience of the matter, and I should say that 20 gallons per head for all purposes is a very good and sufficient supply.

3928. *(Chairman.)* Do you mean for all purposes other than manufactures?—No; I mean for all purposes. Taking an average town, taking London for instance, where manufacturing operations are not large, 20 gallons per head is sufficient for London, including everything.

3931. *(Mr. Prestwick.)* For drinking purposes, a moderately hard water is best.

3932. I will take the case of Paris. The commission appointed a few years ago had opportunities of gathering water from granite districts and from millstone grit districts, I believe, as well as from hard chalk water districts; and upon investigating the facts of the case very carefully the French commission concluded that the evidence went to show that the men were finer grown and that less conscripts were refused upon the ground of insufficient stature or something of that kind in the hard water districts than in the soft water districts; and after much consideration of the subject, they recommended the municipality of Paris to take a water which is almost identically the same as the water of London. Very recently I have received from the government of Vienna the report of a commission appointed to investigate the distribution of water in Vienna, and there again they have abandoned soft water, and have taken to a moderately hard water for two reasons, first, that the evidence goes to show that the men are better formed, that the bones are stronger and better formed, and that there is better health in moderately hard water districts than there is in soft water districts; and, secondly, that the public prejudices against water tainted with peaty matter are so great that a large city should never draw its supply from a soft water district.

3933. *(Chairman.)* Lime is not necessary in water to supply bone, is it?—You cannot say that it is not; probably there is

no evidence to show that it is, but there is no evidence certainly to the contrary. Our bones must be made of lime. It is true that milk and the common articles of diet contain generally speaking enough lime to form the young tissues in that respect, but you cannot say how much a hard water or the lime of a moderately hard water contributes to it. And if we are to be guided by what may be termed the Providential evidences with respect to it, four-fifths at least of the earth's surface being calcareous districts, that is to say, districts supplying hard water, one would think that if it had been the case that soft water was better than hard, we should have had it more abundantly distributed to us than it is. There are notions abroad that hard waters have a tendency to produce gravel, but I have investigated that subject and there is not an instance of gravel or any surgical affection of the same kind that I can trace to hard water. My own opinion is that water of between 10 and 15 degrees of hardness is in every respect the most proper water for the supply of a city.

3937. *(Mr. Harrison.)* You would not consider it necessary according to your view to apply Dr. Clark's process to this water?—I should not for I think it would be injurious. If the water were softened by Clark's process, it is not only an expensive process, and as far as I know a very difficult process to carry out on a large scale, for I know of no instance in which more than half a million gallons a day have been softened, but apart from all that the softening process renders the water very liable to attack lead. It did so at Plumpstead to such a degree that they were obliged to replace I believe the whole of the cisterns or nearly so at Plumpstead, at the cost of the Local Board. The carbonate of lime that was in the water was thrown down in the pipes by a process of crystallization afterwards so as to block up the pipes for miles in length.

3945. We have made some careful inquiries upon the proportions of water used in the better classes of houses as well as in the houses of the poorer classes. In fact it was an inquiry instituted by Mr. Simon and Mr. Heywood, the engineer to the Commissioners of Sewers, and this is the result of their inquiries which helps me in my conclusion upon that point. In first-class houses with from 12 to 20 rooms, with good cisterns and baths, and water supply, and waterclosets, and everything, they take upon the average 12·87 gallons per head. In second class houses, belonging to the better class, but still with good cisternage and waterclosets they take 7·41 gallons per head. Then we come to the poor with their bad receptacles, and they take about three gallons per head. Model lodging houses come next, where every appliance is used, and where the water is not stinted, and in those cases it is exactly 6½ gallons per head for domestic purposes. Then as to our workhouses, in the Holborn Union, which is more liberally supplied with water than the other workhouses in London, 5 gallons per head is the quantity, in St. Martin's workhouse 3·68 gallons per head, and in the Clerkenwell workhouse 3·1 gallons per head. We did upon that recommend that in the city of London 24 gallons should be supplied to every room upon the supposition of four people in a room, which is 6 gallons per head. Lately I thought it right to advance it to 30 gallons per room. I believe that engineers even in large manufacturing towns consider that scarcely ever does one half of the water go for manufacturing purposes. Therefore taking all those facts together I think that 18 gallons per head seems to indicate a very good supply for all purposes.

The witness withdrew.

Reviews.

SANDOWN AS A RESIDENCE AND AS A HEALTH RESORT. By H. Maund, M.D. London: Jas. Walton.

In the month of August a pamphlet devoted to one of the most rapidly-rising resorts of the Isle of Wight must have an interest for hundreds who at other seasons would pass it by unnoticed. Those who have never paid a visit to that lovely island should avail themselves of their first opportunity to do so, and not forget to take in their route Sandown, with its fine bay and sands, and its many facilities for yachting, fishing, and bathing. The grand open sea is at this spot unpolluted by the abominations which are so constantly seen in other sea-side resorts, and we learn from Dr. Maund's work that the rate of mortality of the town is exceptionally low—so low as to demand an investigation into the reasons why there have been so few deaths. We do not propose to inquire into these. We are content to find that no local or avoidable cause of disease exists, and that both water and drainage systems are perfect. The climate of Sandown is the most bracing of the southern division of the Isle of Wight. It is not sheltered like the Undercliffe, and is therefore more a summer than a winter resort. Nevertheless, Dr. Maund regards it as the best place in the kingdom for a residence all the year round. Admitting, further, that it has not much *immediate* protection from easterly winds, he believes that the elevated grounds of Kent and Sussex do to some extent protect it. He says in a foot-note at p. 24—

"I once had occasion to make a rapid professional journey from the coast of Kent to Sandown. When I left Kent, one of the most harsh, cutting east winds I ever experienced was blowing, seeming to dry up the hair, and every pore of the skin, and penetrating through the thickest overcoat. When I arrived at Sandown the same wind prevailed, and the residents called it very cold; but to me, it seemed positively warm, and I gladly dispensed with my overcoat. On my return to Kent, the next morning, I was received with the same bitter wind, and I was informed that the weather had been unchanged during the whole time I had been absent. This was one circumstance that strongly influenced me in fixing on Sandown as a residence. The east wind is most certainly modified, either by passing over the comparatively warm waters of the Channel, or some other cause. This difference is also proved by the vegetation, which, at Sandown, extends quite down to the beach; while on the east and south-east coast of England nothing will grow near to the sea."

We should have been glad, had space permitted, to enter on some other inducements to a visit to Sandown. These, however, are all to be found in this pamphlet, which will be very pleasant reading on the sands of that lovely bay, or in the train on the journey thither. We accordingly commend it to those who are anxiously inquiring where to go, merely adding, that the town is a good specimen of the good effects of efficient drainage and plentiful water supply. As the subject of drainage is of such importance, and practical results are so much more valuable than theories, we will conclude with an extract, showing what has been done at Sandown, and what is our author's estimate of the value of the system there adopted.

"Great credit is due to the inhabitants of Sandown and to their representatives, the Local Board of Health, with the limited means at their disposal, for draining the town in the way they have done. They set out with the determination that *no house shall drain into the sea.* The constant system at sea-side towns, of carrying the drainage into the sea, (Sandown stands nearly alone in this respect), is most reprehensible; nothing but custom could induce one to tolerate so filthy a practice. The bather is obliged to bathe in a weak solution, or, in some cases, a tolerably strong one, in more senses than one, of sewage in sea-water; and at low water, when children delight to dig and form mimic castles, forts, gardens, and puddings of sand, and when they ought to be taking in life and health with the pure sea air, they are enhaling the emanations from sand saturated with sewage. Can anything be more intolerable?

"Many towns have gone to a great expense in carrying their sewage in long pipes to low water mark.

"'Those long dirty tubes which crawl over the sands as the tide goes down, like vast unclean centipedes, are an essentially nauseous spectacle, and when the wind sets on the shore, the sea breeze is often anything but salubrious.'—*Times.*

"And now they must undo what they have done, if they mean to keep up their reputation as health resorts. Dr. Brochard, in his work on 'Sea Bathing and Sea Air,' says—

"'In this case, when the tide is out, we may see the filthy tracks meandering slowly along the sand, whilst the sun's rays exhale the stench into the atmosphere, to be drifted back by the breeze, which it pollutes for the delectation of the bathers and promenaders. Now, what is it to have this filth driven back upon the beach with every tide, and the exhalations from it borne in upon the houses with every breath of wind? Is it equalled by the canopy of smoke which innumerable chimneys, steam-boats, and manufactories, cast into the atmosphere of a great city like London? Not at all. *That* is carbon, comparatively harmless; *this* is carbon in combination with the foulest and most poisonous gases, and intensified by the emanations from thousands of men and animals. Upon such a beach it is impossible that little children should enjoy those walks upon the sands, or those paddlings in the water when the tide is out, which, I have already stated, are so eminently profitable for them. Upon an entirely rural beach, far from any considerable

town (a rare case now-a-days), the air possesses the most positive purity anywhere to be found. Entirely exempt from any pollution by the exhalations from living beings, it fulfils all our requirements.'

"The system of drainage at Sandown is double; large drains carry off the surface water, which is harmless. These have outlets on the shore. The sewage is taken by smaller pipes, and is conveyed clear of the town into cess-pits where it is filtered and deodorized by a chemical process. The clear portion finds its way into the sea, miles away from any town; the solid residue, after being thus deprived of its deleterious properties, is mixed with ashes, the sweepings of the roads, &c., and forms a valuable manure, which, doubtless, some day will prove a considerable source of revenue to the town. Sandown may well be proud of her system of drainage."

THE DUBLIN QUARTERLY JOURNAL OF MEDICAL SCIENCE. No. LXXXVII. August, 1867.

We are glad to see that the current number of our respected contemporary, maintains the high reputation of the *Dublin Quarterly*.

The reader will find in it several Reviews, written in its usual able and critical style; as well as reports of several of our professional societies, and information under the head of "Clinical Records."

The "Original Communications" are various and well-selected. Dr. Popham, of Cork, gives an essay on Aphasia; Mr. Wilson, a Paper on the Opthalmoscope; Mr. Kelly, of Milltown, County Westmeath, one on Maxillary Dislocation; Dr. Cummins, of Cork, one on Cholera; Dr. Kidd, one on Chloroform; Dr Purser, one on the Identity of the Fungi of Favus and Tinea Circinata; Dr. McVeagh on cases of more than ordinary interest in private practice; Dr. Belcher on the use of Iodide of Lead in Cutaneous Diseases; and Surgeon Haverty, 52nd Regiment, on the Recent Epidemic.

EDINBURGH MEDICAL JOURNAL. No. CXLVI. August 1867.

Our able contemporary furnishes us with much readable matter, under its usual heads, "Reviews," "Meetings of Societies," "Perioscope," and "Medical News."

It contains the following good "Originals":—

Dr. John Duncan—Treatment of Aneurism by Electrolysis.

Dr. Thomas R. Frazer—Action of Galvanism on Blood and Albuminous Fluids.

Mr. Annandale—Circumscribed Tubercle in Bone and Muscle.

Dr. Davidson—Choreomania, especially as observed at Madagascar.

Dr. Hjaltelin—Treatment of Hydatid Disease in Iceland.

Dr. T. J. Maclagan—Typhus in the Dundee Infirmary.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 21, 1867.

Writers who indulge in slander against individuals are liable to a sudden interruption to their career by the injured person's attorney, who frequently threatens, and sometimes succeeds in making them pay heavy damages. Not so they who confine their libellous statements to whole classes. It is a tolerably safe amusement to people of a cynical turn of mind to sneer at their neighbours in the several groups in which society divides them, while those more malignantly inclined have always at hand a method of indulging their spleen by representing as springing from evil motives all the good deeds of the race. A knowledge of this may well incline us to consider of little importance the attacks of those who abound in unfounded assertions. Our profession is continually the butt of every kind of weak ridicule; nor are our foibles, as a body, so few as to incline us to resent as unkind the wit so constantly directed upon them. In fact, we yield to none in our hearty enjoyment of that wit whenever it is of a nature to provoke innocent mirth, and is calculated to incline us to avoid some weakness, or give up something that diminishes our just influence. Far otherwise must it be with an attempt to fasten on our noble profession a charge which, if it could be justified would expose us all to the merited contempt of every other class in society. We believe that, as a whole, there is no body of men more honourable, upright, and self-denying than the Medical Profession. It is on our unrequited labours that the poor depend and their patrons calculate. Charity without us were helpless, withdraw our aid from the magnificent Hospitals, Dispensaries and Infirmaries, of which the great public boasts, and where would they all be? Beyond their range—in districts where they have no existence—on the barren moor where the cottager's nearest neighbours are miles away—in the attic or cellar of crowded cities, beneath the notice of charitable ladies and gentlemen—who but the doctor, faithful to his mission of healing, is seen in every hour of pain, pouring the balm of comfort into the heart of his suffering brothers and sisters, and giving freely to those who have not the wherewithal to pay for it all that long devotion to science has enabled him to bestow? We believe that, as a whole, the public are not insensible to the disinterested nature of our ministrations, and when education shall have spread to the lowest depths of society, and the waifs of humanity shall have learned to reflect, there will be no lack of gratitude in the ranks in which we do not even look for it now.

But, while conscious of all this, it must ever be painful for such a Profession to be denied the respect to which it is entitled by those who, from education, should be leaders of correct opinion. We cannot, then, as jealous guardians of the honour of our Profession, pass by, without indignant denial, a libel on our body that has just been perpetrated by a respectable and usually moderate organ of opinion. The *London Review*, in commenting upon the case of Mrs. Thwaytes, has printed the following unfounded statement:—

"She need not go mad in order to make a ridiculous use of her power. Without the help of monomania, she might have been led into the belief that Dr. Smith was essential to her existence, was her staff and her prop, her wisest councillor, her staunchest friend. He might have persuaded her that he alone possessed the knowledge of her constitution and the secret of her health; and that if she fell into other medical hands, she would presently be involved in incalculable woes. *It is a trick common amongst medical practitioners of the general class to produce this impression on the minds of their patients, especially when they are women;* and Dr. Smith is either to be blamed or commiserated, according as he encouraged Mrs. Thwaytes's hallucination, or combated it in vain. It would have been infinitely better for him and his brother had his patient not conceived that dreadful idea of false identity which has put the well-meaning but unfortunate Smiths out of court."

We have placed in italics the phrase upon which we rely to show that the writer had no intention of conveying an imputation on any individual, but deliberately and intentionally gave expression to what we have no hesitation in pronouncing a most wicked slander upon a most noble and unselfish body of men. We repudiate the accusation on the part of the Profession we represent. We defy the writer to produce the shadow of a foundation for the baseless assertion he has had the hardihood to propagate, and we call upon him in the name of truth and justice to retract the most uncalled-for imputation on the honour of our Profession that has recently sullied the pages of English journalism.

A DISPENSARY ELECTION.

The last election of a Medical Officer for the Ballinakill Dispensary, appears to us worthy of notice as a proceeding, happily hitherto unprecedented, and to be avoided for the future.

The members of the committee met in the Dispensary House, Ballinakill, on the 26th ult., for the purpose of proceeding with the election of a medical officer. The vacancy occurred by the death of Dr. Walsh in February last, and the duties have been discharged since that time by Dr. Fitzpatrick of Ballinakill, who was now a candidate. He was opposed by Dr. Carey. The committee had met several times without being able to come to a decision, but it was believed that an election would take place at Saturday's meeting.

The first fact elicited was, that by order of the Committee the vacancy had not been advertised in any paper except the *Freeman's Journal*. The object of this course will be understood when it is stated that the *Freeman's Journal* is the chief organ of Roman Catholicism in Dublin, and is seldom read by persons of any other religion. The advertising of the vacancy in its columns, was equivalent, therefore, to the exclusion of candidates of any other creed, and is altogether out of the usual course.

"The Chairman said that was a special meeting for the election of a medical officer for that dispensary district; that being so, they would not transact any other business.

"He believed the diplomas of both gentlemen were very good in all respects.

"Mr. Fleming said those of Dr. Fitzpatrick were far superior to those of Dr. Carey. He thought it very wrong that men should come there to oppose a man who had been chosen by the priests, the farmers, and the people, because he was not of their creed. It was a shame that when men of his class had supported gentlemen who were then present in high positions, they should turn round and oppose them in a matter of £100 a year.

"Mr. Fleming—They are against priests and people.

"The hon. secretary (at the Chairman's request), read the list of each candidate's diplomas and testimonials.

"Mr. Marum—Dr. Fitzpatrick has had far more experience in my opinion, although I know Dr. Carey was successful enough in Castlecomer. He would at once take leave to propose Dr. Fitzpatrick as a fit and proper candidate to discharge the duties of Medical Officer in that district. He did so not only in his own name, but as the mouthpiece of the Roman Catholic clergy, and guardians and people of that district, who had testified their anxiety to have Dr. Fitzpatrick. He was very sorry indeed that a religious element had been imported into this election. He repudiated any such feeling on his part; he was actuated by no sectarian motives; and he would put it to those gentlemen even at the twelfth hour, was it worth their while, in a matter of this kind, to oppose the choice of the people, and refuse them the gentleman they themselves had selected?

"Mr. Fleming seconded the nomination of Dr. Fitzpatrick.

"Mr. Brownlow said he had proposed Dr. Carey so recently it was not necessary he should do more than formally propose him again.

"Mr. Bland said he had no objection to second Mr. Brownlow's proposition, and at the same time to reply to some observations that had been made. A correspondence had been printed in the press asserting that they came forward and, actuated by bigotry and dictation, used their privilege to oppose a man because of his different religious belief. From the beginning, he had disclaimed everything of the kind; his aim and object had been to secure the best man not only for themselves, but for the people of the district—to have the candidate best qualified by experience and capacity. As to sectarian feeling, he would remind the meeting that on two occasions he had proposed Dr. Walsh, a Roman Catholic, in that room; and his vote had turned the election in favour of a Roman Catholic in Ballyroan."

By a majority of seven to three Dr. Carey was elected.

The *Leinster Express* informs us that—

"In the street in which the dispensary house stands there were in different positions four batches of constabularly, in all thirty men, with rifles and side arms. Sub-Inspector Tilly was present; and Mr. Rogers, R.M., Tullamore, remained at the dispensary during the sitting of the committee. At the conclusion of the meeting, about 100 young men or more had gathered in the street, and as the members passed out they groaned or cheered as they thought fit. Viscount Ashbrooke, whose way was in an opposite direction from the crowd, was loudly groaned; while Messrs. Domville, Moore, Bland, Cooper, Brownlow, and Edge, as they quietly walked up the street together were vociferously hooted. A number of the constabularly with Mr. Rogers and Mr. Tilly, joined round them and escorted them up the town."

The transaction which we have narrated above is the first attempt to introduce publicly and openly a system of religious coercion into the election of Dispensary Medical Officers in Ireland, and we trust it will be the last. An effort, so scandalous to the system of representative guardians, to pervert the trust which has been misconfided to them, would, in our opinion, fully justify the Poor-law Commissioners in refusing their assent to the election.

From whatever creed the attempt may emanate our condemnation equally applies, and a repetition of this scene would almost justify the Government in transferring to other hands the trust which is so flagrantly misapplied.

THE ENGLISH VACCINATION ACT.

This important measure, which we have several times commented upon during its progress through Parliament has at length received the Royal assent, and will take effect from the first of January, 1868. By it all former statutes on the subject are repealed from the day in which the new

Act will come into operation. The Poor-law Guardians are directed to divide unions and parishes into vaccination districts, or to consolidate or alter them, subject to the approval of the Poor-law Board. The qualification of a vaccinator is to be prescribed by the Lords of the Privy Council, and their Lordships may order, in addition to the fees allowed by the parishes, a further payment not exceeding 1s. for each child whom the vaccinator has successfully vaccinated during the time to which the award of the Lords of the Council relates. The vaccinators are to be paid by the Guardians 1s. 6d. each child, 2s. at a certain distance, and if over two miles, 3s. each. When the birth of a child is registered, or within seven days, the registrar is to deliver a notice of vaccination, and the child is to be brought within three months, and on summary conviction for not bringing the child to be vaccinated, or afterwards to be inspected, the offender to be fined 20s.

Before the Act is in actual operation, our readers will have had full opportunities of studying and discussing each of its provisions. Of these, the first in importance to them, and the only one to which we shall this week refer, is that relating to extra payments—the system of "payment for results," as it has been sometimes styled. This principle was sanctioned by Parliament last year, a grant of £5000 having been devoted to these extra payments. The Act, therefore, which last week received the Royal assent, in this particular only perpetuates a plan that has been already tried. The intention of the grant has been so variously represented, that we cannot better serve our readers than by placing before them the account given by the Medical Officer of the Privy Council, in his report, which has just been presented to Parliament, and which may, therefore, be looked upon as the official statement of the reasons that have led to its complete adoption. He says :—

"The intention of this grant was not to relieve local rates of a part of the costs already chargeable on them for fees to public vaccinators, but to provide, independently of local rates, that meritorious public vaccinators should have their earnings by vaccination increased. There had always been a great deal of complaint from the Medical Profession that public vaccination was not sufficiently paid for. Against this complaint it was argued that guardians had no better means of determining what price to pay for public vaccination than by adopting the minimum price for which duly-qualified local practitioners were willing to contract to furnish it; and that, a certain market price for vaccination being thus fixable, practitioners could not reasonably complain of terms which they had voluntarily accepted, nor guardians properly be coerced by legislation into paying an artificial, protective price for the service. And of course on all sides it would be recognised that, however poor might be the remuneration under contract, the practitioner who had voluntarily made the contract could not plead the poorness of payment as an excuse for imperfectly fulfilling his engagements. Yet, on consideration of the whole case, Parliament, in 1853, had determined that the price to be paid for public vaccination could not, with due regard to national interests, be left an entirely open question between guardians of the poor, on the one hand, and competing members of the Medical Profession on the other. It had fixed a minimum price of 1s. 6d. (with additional rate for distance), below which it should not be lawful for guardians to pay. But the fixing of this minimum (which in practice guardians were very apt to regard also as their maximum) did not satisfy the Medical Profession; and always, when consideration was being given to proposals for amending the vaccination laws, question arose whether the provisions of 1853 as to payments for public vaccination could be so changed as to remove that dissatisfaction. It was found, however, that any statutory fixing of a higher minimum rate for vaccination contracts would be strongly resisted on the part of local authorities; and apart from this kind of opposition, doubts were entertained as to the propriety of pressing any further a principle of legislation so evidently exceptional as one which aimed at protecting the medical profession from the ordinary consequences of competition among its own members. On the other hand, no sensible person could avoid seeing that the national defences against small-pox might be of a most untrustworthy sort, if the business of seeing to them for each locality were virtually assigned by the guardians to the lowest professional bidder. The mischief of such a system would not lie so much in those extreme cases (which I trust would be as rare as they would be scandalous) where a contractor, poorly paid for prescribed duties, might deem himself free to neglect them: it would consist far more in the very extensive unwillingness, which would be engendered, to incur trouble beyond the letter of the contract. And this kind of feeling, as I endeavoured ten years ago to express, would, in my opinion, be the worst of dangers to public vaccination. The national utility of public vaccination depends, to a degree which unskilled persons can hardly imagine, on the condition that its local administrators shall work, not merely as competent perfunctory performers of prescribed tasks, but thoroughly with zeal for their work. And in this point of view it becomes an important public object that the scale of payment provided for their service shall be such as they can accept with satisfaction.

"My Lords, after considering all the circumstances of the case, determined that the best course for them to take was to ask authority from Parliament to give to public vaccinators, under certain regulations, gratuities in excess of their contract receipts. The contract rate might, they thought, remain as heretofore, to be adjusted between guardians and medical practitioners, subject only to the actual statutory provision of a minimum; and they would assume (as indeed no other assumption is practicable) that the contract rate represents a payment which the contracting medical practitioner deems sufficient for his prescribed duties. But, inasmuch as the thoroughly well vaccinated state of the population of a place indicates, almost of necessity, that the contractor exerts himself in various ways which lie beyond the definite obligations of his contract—exerts himself with zeal both to optimise the quality, and also to maximise the quantity, of the local vaccination, therefore my Lords would ask Parliament to allow an annual sum out of which extra remuneration for this zealous work might be awarded under their Lordship's direction."

Notes on Current Topics.

THE HEALTH OF LORD BROUGHAM.

THE various reports that prevailed during the winter as to Lord Brougham's health, at his villa at Cannes, attest the interest that still centres in the veteran President of the Social Science Association. His safe return to England will everywhere be hailed with lively satisfaction. We regret that he should not be so strong as might have been hoped, but, considering his advanced age, there is, perhaps, on the whole, but little cause for disappointment, as the journey from the south of France could not fail to considerably fatigue his lordship.

The *Carlisle Journal* says:—"His Lordship appeared to be in a very feeble condition, considerably more so than on his visit last year, and it seemed to require all his exertions, with the assistance of his valet, to get out of the carriage. Having descended to the platform he sat down in a chair until the train passed on, his only inquiry being as to the state of the weather, and he was then carried across the line to another chair brought for the purpose. With the assistance of his valet he walked the short distance to his carriage, which was in waiting for him, and, having been assisted inside, he was driven to Brougham-hall. We are informed that his Lordship was in as good health as could be expected, but he was suffering from the fatigue occasioned by his journey from London. Lord Brougham will attain his ninetieth year on the 19th of September next."

GREENWICH HOSPITAL.

IT is not improbable that Admiralty will grant the use of the *Infirmary* to the Seamen's Hospital Society, and that thus the contention as to the future Dreadnought will be

brought to a close. There is an idea with many that even this portion of the mass of buildings will be much less useful than a new hospital. We doubt not an appeal to the public would have enabled the Society to erect a good hospital on their own site, though there is no denying that money thus spent might be better employed.

We are glad to observe that the notion of a good Naval Medical School at Greenwich, which we have so often urged is beginning to take root, several of our contemporaries having endorsed our opinion. With such a pile of buildings to dispose of, a noble Naval Hospital and a creditable Naval Medical School might easily be organised, and soon be in good working order, conferring the same benefits on the navy that the army school does on that branch of the public service.

INTERNATIONAL MEDICAL CONGRESS IN PARIS.

A VERY large number of medical men from different parts of the world met, on Friday last, in Paris in the large amphitheatre of the Academy of Medicine, at the first *séance* of an international medical congress. The Minister of Public Instruction has deputed M. Denonvilliers, the Inspector-general of the university, to represent his department, and many of the foreign governments have sent special delegates, *e.g.*, Professor Fréricks represents Prussia ; Dr. Seitz, Bavaria ; and Dr. Barbosa, Portugal. Several important subjects have been placed upon the programme for discussion. On Friday last the president of the executive committee, Professor Boulland, delivered an address, the delegates from learned societies presented their credentials, and lectures were given upon the subject of consumption by Professor Langalli (Pavia), Dr. Villemin (Paris), Professor Crocq (Brussels), Professor Lebert (Breslau), Drs. Maronisse and Sarramea (Bordeaux), Dr. Ullerspergen (Munich), Dr. Homan (Christiania), and others. On Monday the congress was occupied with deliberations upon the subject "Of the conditions which cause death after surgical operations ;" on Friday it will consider "The Prevention of enthelic diseases ;" on Monday (26th), "The acclimatisation of European races in hot climates ;" on Wednesday 28th, "The influence of common aliments in different countries in the production of special diseases ;" and "The influence of parasites that flourish on man." A large number of English medical men have gone to Paris to attend the meetings of the congress.

THE HEALTH OF LONDON.

THE deaths from diarrhœa registered last week were 189, as against 217 in the week preceding. Of these, 177 were deaths of children, and only 12 those of adults. 26 took place in the western districts, 46 in the north, 30 in the central, 44 in the east, and 43 in the south. Besides these, 13 deaths were recorded as from cholera or choleraic diarrhœa. There are no other facts of importance, and these figures therefore supplement the remarks we made on this subject last week. The following fact reported by the Registrar-General is not devoid of special interest:—

"The London sewers will carry off, according to the computation of Mr. Bazalgette, in addition to the sewage, ¼ inch of rain in 24 hours ; but between midnight and 9 o'clock of Friday morning, July 26, 3¼ inches of rain fell, not like a thunderstorm, but by a uniform downfall extending over the whole metropolitan area. London was covered with 26 million tons of water. The tide rose as the storm fell, so that the discharge of the waters by the sewers into the Thames became impossible; and the lower parts of South London were flooded, where at high water the river is 6ft. or 7ft. higher than the streets, and 12ft. higher than the basements of the houses. (See Report of Engineer to the Metropolitan Board of Works, Aug. 9, 1867.)

THE METROPOLITAN RAILWAY.

THE underground railway, or, as it is named, "The Metropolitan," has so long become an established fact, that it is now quite indispensable. Its connections and use have rendered it one of the best paying lines in the kingdom ; but whether it is the most healthy, whether its close and suffocating air may not render it prejudicial to the respiratory organs, if they at all show a tendency to disease, has yet to be ascertained. An inquest was held on a woman who died at the Bishops-road Station. She complained of difficulty of breathing and great pain, and before she could be conveyed to the hospital she was dead. It seems from the post-mortem examination that bronchial disease existed, and it was considered that the impurity of the air on the line had hastened death. If such is the fact, some mode of ventilation ought to be devised immediately, especially as it is well-known that there are escapes from the sewers passing under it and by its side, which render the air more noxious than it would otherwise be. It appears to us, however, that the verdict in this case is little better than the echo of the coroner's opinion, and until some more reliable basis for the statement be produced, the public will pay little attention to it. The statement that the atmosphere of the Metropolitan is dangerous to persons with delicate chests, is of too serious import to the public and the proprietors of the line to be determined by the *ipse dixit* of the coroner, and we suggest that that gentleman, or the company itself, should set public doubts at rest in the matter.

RESCUE FROM FIRE.

LATELY the Royal Society for the Protection of Life from Fire, held their anniversary meeting in the Council Chamber, at Guildhall, when the managing committee resigned their charge, and transferred their plant to the Metropolitan Board of Works, under the provisions of the Fire Brigade Act, 28th and 29th of Victoria. The Lord Mayor presented the prizes to those who had distinguished themselves in saving life from fire during the past year. Since the establishment of this society in 1843 down to the present year, when it relinquishes its functions, 9299 fires had been attended, and 1150 lives rescued. The plant is worth £9000, and has been presented to the Board on behalf of the subscribers, the society receiving only £1414, for the purpose of compensating the society's men who retire. The committee recorded their sincere acknowledgments to their able and zealous secretary and other officers, for the faithful performance of the arduous duties that had devolved upon them.

ACCIDENTS IN THE STREETS OF LONDON.

As conservators of human life and safety, we have, on different occasions referred to the street traffic of London. We have urged the necessity of adopting some regulations by which the serious injuries that are constantly taking place in our public streets might at least be lessened if not altogether avoided. Hospital reports and coroner's inquests are witnesses to the accidents which are repeatedly occurring. On the day of our last issue, an inquest was held by Dr. Lankester, at the Royal Free Hospital on the body of Mr. J. Colton, 86 years of age, who was knocked down and run over at King's Cross. A discussion took

place on the danger of crossing the road there, and after the verdict a resolution was adopted to remind the local authorities of the necessity for regulating the traffic at that place. This is only a specimen of what is taking place in all the crowded road-ways of our metropolis. It is estimated that on an average three lives are sacrificed, and thirty-six injuries, more or less severe, inflicted every week by the manner in which the public traffic is conducted in London. We are glad, therefore, to find that the Metropolitan Traffic Regulation Bill was read a second time in the Commons before the separation of Parliament. It contains a variety of useful regulations, and we hope to see it come into full operation early in the next session.

THE LATE DR. VICTOR BAZIRE.

On the 11th inst., suddenly, died this accomplished young physician, only thirty-two years of age. He had already achieved considerable distinction, and by his qualities of head and heart alike, had endeared himself to a large circle of Professional friends, numbering amongst them the very foremost names. As a graduate, both of the London and Paris Universities, he had obtained at each the highest distinctions, and he might have been reckoned as one of the most rising men in the metropolis. It would have been difficult, indeed, to point out a more promising physician, and we know that he was looked upon as a most desirable addition to the staff of one of the principal hospitals, and it was earnestly hoped he would come forward at the next vacancy. He had for some time been on the staff of the National Hospital for Epileptics, and had formerly been Registrar of the Westminster Hospital. He was, during the current year, the author of a number of Hospital Reports in the *British Medical Journal*, and had formerly contributed to the same department of the *Lancet*. His more valuable literary production was the "Translation of Trousseau, with Notes," one volume of which we received but a few months ago, and another of which had just come to hand. Death has cut short his brilliant career at an early age, and, therefore, what he had already accomplished, can only be regarded as the bud of promise. What might not the full blown flower have been?

SANITARY STATISTICS OF LONDON.

Dr. Letheby's report for the quarter ending June, 1867, has reached us, from which we select the following quotations :—There were 591 births and 478 deaths registered in the city of London during that quarter. These numbers are geatly below the average for the corresponding period of the last ten years, the average proportion of births in the quarter being 755, and of deaths 670. In the East London Union the births were 250 ; in the West, 156, and 185 in the city proper. The deaths were distributed as follows: 170 in the Eastern division of the city, 150 in the Western, and 158 in the Central. In the corresponding period of the last ten years the average mortality in the city has been at the annual rate of 21·9 per 1000 of the population. In the whole of England it has been 21·8 per 1000. The mortality in the city, therefore, during the quarter has been remarkably small, less in fact than that of the small towns and country districts of England. Of these 478 deaths, 152 were of children under five years of age, 40 of persons from five to twenty, 63 from twenty to forty, 89 from forty to sixty, and 134 at sixty and upwards. The chief causes of death are as follows :—78 from phthisis, 20 from tabes and scrofula, 8 from hydrocephalus, 74 from pneumonia and bronchitis, 18 from continued fever, 2 from scarlet fever, 9 from small-pox, 3 from measles, 21 from whooping-cough, croup and diphtheria, 5 from erysipelas, and 9 from diarrhœa—of which 6 were deaths of infants. Most of these are greatly below the average for the season; phthisis, for example, has declined from 91 to 78, tabes and scrofula from 41 to 20, hydrocephalus from 22 to 8, alvine disorders of adults from 10 to 3, continued fever from 26 to 18, scarlet-fever from 18 to 2, measles from 21 to 3, whooping-cough, &c., from 48 to 21, and bronchitis and pneumonia from 104 to 74. The sanitary condition of the city, therefore, as indicated by these returns, has been remarkably good, better, in fact, than in any preceding quarter. The meteorology of the quarter, Dr. Letheby remarks, will hardly serve to explain this improved condition of the public health ; and after stating the proportionate degree of temperature, the atmospheric pressure, the large amount of rain, and the humidity of the air, he observes, "the season, therefore, has been wetter and a little warmer than usual, and this perhaps has had a salutary effect." He states also that the work of sanitary inspection has been pursued with unusual vigour ; no less than 6547 houses have been inspected during the quarter ; numbers of them have undergone sanitary improvement. There have been notices for cleansing and lime-whiting, cleansing and repairing privies, amending drains, improving the water supply, supplying water to closets, abolishing cess-pools, the disposal of waste water; and for other sanitary defects, as overcrowding, accumulation of dung, bad paving of cellars and yards, &c. The markets and slaughter-houses, and cow-houses of the city have also been inspected, and no less than 98,728 lbs., or rather more than 44 tons, of meat condemned as unfit for human food, besides game and poultry, and fish. These are labours which cannot be too highly prized, and which, no doubt, have contributed largely to lessen the mortality of the quarter. The city cannot be too proud of an officer so capable, and whose duties are so indefatigably performed.

UNIVERSITY OF EDINBURGH.

The annual ceremony of capping the graduates took place on the 1st of the month at Castle Hill, when Sir D. Brewster presided, and Professor Syme, the promoter, addressed the students. This address, which we regret not to have been able to report at present, urged upon those who had attained one object of their ambition—the possession of a degree—the pursuit of their profession so constantly and zealously as to maintain the position they had won, and entered further upon their several social relations and duties in a manner that is not likely to be readily forgotten. We trust the lessons inculcated by the learned professor may be carried into practice by the numerous gentlemen who, on that occasion, received the degree of the Edinburgh University.

VIVISECTION.

The prevalence of operations of this kind in France, and the extent to which they have been carried, have excited attention, and led to remonstrance in this country. A strong feeling has been awakened against the cruelty which has been inflicted on the victims of such practice. The answer is, that it is justified on the ground of its necessity in the interests of science. Without stopping to decide on the morality of this plea, we simply insert the following from the report of the international congress for the protec-

tion of animals, held at Paris this year—"Dr. Richardson gave a short lecture on local anæsthesia in veterinary operations. He performed a number of experiments with rapid and entire success, in illustration of his argument, passing a small seton needle through the arms of Dr. Fraser and M. Decroix, and making a very large surface of his own arm insensible. The experiments created quite a enthusiasm. The author stated, finally, that there was no justifiable operation on an inferior animal which could not be performed painlessly by the local method—an announcement which was received with a general expression of approval."

THE FATE OF A PAUPER.

An inquest has been held on a pauper of the advanced age of seventy-four, the verdict of which we commend to the attention of every one. It is in the following terms :—

"That the deceased died in Bethnal-green Workhouse from the effects of acute inflammation of the lungs, and the said jurors do further say that the death was caused or accelerated by putting him to work in the cold and rain ; and they do lastly say that the superintendent of labour is highly censurable for putting him to work when the medical officer said he could not work."

The cause of the sick poor is evidently not yet triumphant. A question in the House of Commons has elicited the fact that the Poor-law Board have sent an inspector to report on the case, but that the officer implicated had resigned. If the Poor-law Board should suffer any resignation, or any other act, to interfere with a thorough investigation and a publication of the facts, it will be guilty of a gross dereliction of duty.

THE FAMINE IN ORISSA.

The evidence taken by the Commission of Inquiry in reference to the effects of this famine, discloses the most distressing and, in some instances, the most horrifying state of things. The mortality was fearful. Corpses by hundreds were found lying in the field, sometimes the jackals eating them. Men and carts in large numbers were kept to collect the dead bodies, which were first cast into a pit, but afterwards thrown into the river, and floated out to sea. Some idea may be gained of the misery inflicted by this scourge from what is reported by Dr. Jackson, Medical Officer of Balasore Civil Station. He says :—

"People used to lie down under the trees at night to sleep, and to be found dead there in the morning. Cases occurred in which people fell into the water from debility when they went to drink. I saw a woman lift up her arm and let it drop while a dog was pulling at her entrails and eating them. People died in the roads and fields all about. Many died without being seen. Latterly we discovered that a great part of the famine mortality was due to an extraordinary tendency to frightful worms, which produced false appearances of cholera and other diseases. At the hospital, the mere occupation of throwing the dead bodies into a pit and covering them with earth was more than enough to employ every mehter we could get, the mehters being the only caste in the district who would touch dead bodies." Our Calcutta correspondent mentions three instances in which human flesh was eaten.

Legal Intelligence.

NORFOLK CIRCUIT—CROWN COURT.

(Before the Lord Chief Justice, August 13.)

ILLEGALLY RECEIVING A LUNATIC PATIENT.

Frederick Willis Hone Milburn was indicted for receiving and taking charge, as a patient, of the Reverend James Alexander Barnes, a lunatic, not having legal authority to do so.

The prosecution was instituted by the Commissioners of Lunacy, under the 8th and 9th Vict., c. 100, s. 90, which provides that no person shall receive to board or take charge of any patient as a lunatic, without order or medical certificate.

The defendant was in the year 1860 living in London, being engaged in the business of receiving lunatic patients. In consequence of an advertisement inserted by him in the papers, a communication was entered into that year between him and some members of Mr. Barnes's family, and the result was that Mr. Barnes was put under his care. Mr. Barnes, who is the rector of Gilling, a living belonging to Trinity College, Cambridge, of which College he was once Fellow, is brother to the late Mr. Keith Barnes, member of the firm of Lyon, Barnes, & Ellis, now Ellis & Ellis (of Spring-gardens). Mr. Keith Barnes, from a correspondence that was put in and read, arranged with the defendant that he should take charge of his brother at a stipend of £500 (which was afterwards increased to £600) per annum ; and Mr. Barnes having been removed to the defendant's house, the defendant left London and went to Aldringham. By some means, which did not exactly appear, the attention of the Lunacy Commissioners was directed to the defendant's house. They sent down one of their members, Mr. Cleaton, who, with two other gentlemen, visited the place and had an interview with Mr. Barnes, which left no doubt on their minds that he was quite insane. There seems to have been not the least doubt that Mr. Barnes was insane at the time he was received by the defendant into his house, and that he was treated with proper care, consideration, and kindness while under his hands ; but as it was proved that no licence to hold a house for lunatic patients had been granted by the magistrates of the district in which Aldringham lies, nor any certificate forwarded to the Commissioners of Lunacy, this prosecution was instituted.

These facts being established, the jury found the defendant *Guilty*.

His Lordship, taking into account that there was no doubt about the insanity of Mr. Barnes at the time he received him, and that the family were anxious that he should be put under the defendant's care, said that he should pass a sentence which would meet the justice of the case. The defendant had broken the provisions of a statute which was of a most wise and salutary nature, though there was no doubt that he had treated his patient with care and humanity. He must therefore pay a fine of £100, and be imprisoned until it was paid.

The fine, which was afterwards reduced to £50, was paid early next morning.

Summary of Science.

(Specially Edited and Compiled for the Medical Press and Circular.)

By CHARLES R. C. TICHBORNE, F.C.S., F.R.G.S.I., &c.

[The Editor of this Summary wishes it to be understood that he is not responsible for the ideas, theories, or the correctness of the statements made in any of the papers quoted in this Compilation.]

"THE CHEMISTRY OF THE FUTURE."

Sir Benjamin Brodie's discourse "On the Mode of Representation afforded by the Chemical Calculus as Contrasted with the Atomic Theory."

The following notice is an epitome of this communication. Although the production of one of our most eminent chemists, it is doubtful if Professor Brodie's chemical calculus will be of much practical use to the science, but we should be wanting in our duty to our readers, if we omitted to give a report of this important paper. The author said that he was about to speak of a method of representing the facts of chemistry in a manner fundamentally different from the method at present in use. He then passed in review the different theories of chemistry. First, we had Phlogiston. Lavoisier, however, shattered Phlo-

giston. For no inconsiderable period after this, chemists appeared to have worked without a theory, that is to say, that as, during the long alchemical ages, chemists were occupied in collecting together those facts which were afterwards to be embodied in the theory of Phlogiston; so for a period of thirty or forty years—from the time of Lavoisier to the time of Dalton, chemists were employed in collecting together that exacter system of facts which was to form the basis of a far wider and nobler theory—the great atomic doctrine. Davy appears to have worked, and to have made his discoveries without a theory. He would never admit the atomic theory, but rested content simply with the facts of numerical analysis. In the atomic doctrine which appeared in "A New System of Chemical Philosophy" (1808), Dalton took up the conception of combination which had been introduced into the science by means of the theory of Phlogiston.

From the point of view of the atomic theory, chemists have worked for more than sixty years. "I cannot say," continued the lecturer, "that this has been an unremitting progress. It has rather been a succession of events." He then referred to the symbolizing of chemical combinations by balls and wires, &c., and "said that chemistry must have got upon a wrong track, and that it really could only be a series of errors and misconceptions which could have landed us in such a bathos as this." Now, any person who seriously attacks these ideas is bound to show some better way of representing the facts.

In constructing any calculus or method, the principle to be observed, in regard to the symbols, is by no means to give them their arithmetical meaning or interpretations, but simply to construct them properly according to the laws which they obey in arithmetic and in Algebra.

The introduction of symbols of operations into chemistry was a distinctive feature of the author's method which he had accordingly termed "calculus of chemical operations." His object was to express, by means of symbols, the operations by which chemical substances were made, or rather those by which gaseous matter was made.

The fundamental conception of his ideal chemistry, was that all chemical substances were brought into the gaseous condition. The simple relation existing between the combining volumes of different gases had, of course, suggested this foundation for his system. Every gas was measured at 0°C, and at 760 mm pressure. The two units employed in his system were thus defined—

A unit of ponderable matter was that portion of ponderable matter which, in the condition of a perfect gas, at the temperature of 0°C, and under the pressure of 760 mm occupied the space of 1000 C C.

The unit of space was 1000 C C, divested of all matter whatever. It might be represented by symbol 1, and the matter in it was, of course, 0. Hence the paradoxical expression 1=0, but this meant simply that the unit of space was space, and contained no matter. We next required a symbol to represent putting matter into the unit of space; let the symbol be x—x 1 then represents the operation of putting matter of a certain density into the unit of space at 0°, and 760 mm. The same kind of matter at double the density, and contained within the same space, but still, under the same conditions of temperature and pressure, would be represented by x x 1, or $x^2 1$; of three times by xxx 1, or $x^3 1$. Again, another kind of matter might be represented by y, then y^1, $y^2 1$, or $y^3 1$, would signify the unit of space filled with matter of y under its ordinary density, or double, or three times this density, but always under the same conditions of temperature and pressure. These symbols might be combined thus—x y 1 would mean the unit of space filled with x and y at the same time, but under the normal conditions. The symbols, then, representing weights and kinds of matter—x and y—might be said to be operations of combination.

Let A be the matter of x, and B the matter of y, then x would mean the operation of combining A, and y would mean the operation of combining B—x 1 then would mean, "combine A with the unit of space;" and y x 1 would represent, combine A with B in the unit of space.

By this mode of constructing symbols, we might represent such facts as the following:—

2 vols. of hydrochloric acid contained the same ponderable matter as 1 vol. of hydrogen and 1 vol. of chlorine; or to express similar facts in the language of the calculus—*2 units of space of ammonia contain the same ponderable matter as 3 units of hydrogen and 1 unit of nitrogen.*

It is necessary to start with some hypothesis on which to found symbols. The hypothesis is that the unit of hydrogen was a simple weight resulting from one operation. Taking a as the symbol of this unit, then oxygen would have to be represented by a symbol indicating that it was found by two operations thus, ξ^2, water $a\xi$; chlorine was made by three operations, $a\chi^2$; nitrogen, $a\nu^2$, was made by three operations; ammonia, $a^2\nu$, by three. These symbols were in fact condensed equations.

The following formulæ are selected from a long list given by the lecturer to illustrate his subject—

Symbols of the Units of Chemical Substances.

Unit of space	1	Chlorine	$a\chi^2$
Hydrogen	a	Hydrochloric acid	$a\chi$
Oxygen	ξ^2	Iodine	$a\omega^2$
Peroxide of hydrogen	$a\xi^2$	Carbon	κy
Sulphur	θ^2	Alcohol	$a^3\kappa^2\xi$
Sulphuric acid	$a\theta\xi^4$	Tetrachloride of carbon	$a^2\chi^4\kappa^2$

The discussion that followed this paper contained some points worth noticing.

Dr. Frankland remarked that he did not believe in atoms, "nor do I believe in the existence of force." The speaker went on to remark that we do not express in our chemical formula, and in our chemical symbols, the idea of the *force* which has been involved in the operations expressed in those chemical compounds to which we apply the formulæ. He was of opinion that we might seek in vain for this element in the new development (Sir B. Brodie's.) "If we take two well-known chemical compounds, viz:—nitric and sulphuric acid," said Dr. Frankland, "we know with certainty that in the case of nitric acid the hydrogen present can be taken out of it in one piece only, whilst in the sulphuric acid you can take out the hydrogen in two pieces. Now, when we look at the formula, $a\nu\xi^3$, and sulphuric acid $a\theta\xi^4$, we find in both these the same expression for the hydrogen, so that there is not contained in this the same amount of information contained in the old notation. Dr. Odling remarked that some do, and some do not believe in atoms, but that it still remained true that our notation was based upon the atomic theory, and that without the atomic theory our language had no meaning whatever. One of the advantages of the new method was that it was not inconsistent by any means with the atomic theory, but at the same time was not based upon it. The new system is the first in which all prime factors can be written by an integral number. Mr. Foster said he thought the point which must strike chemists at first sight as the most interesting results of Sir. B. Brodie's method was that it enabled them to arrive at the conclusion that some elements were compounds. This, however, was not the first time it had occurred in the history of the science, that chemists had arrived at the conclusion by reasoning that some substances whose elements they did not know were compounds. For instance, before it was known that the alkalies and the alkaline earths could be separated into oxygen and a metal, the majority of chemists were pretty well convinced that they were compound substances. With regard to chlorine itself (hydrogen would appear to be contained in all the haloid elements, according to the formulæ of Sir B. Brodie), that substance was at its very discovery viewed in a manner which was analogous to, if not in point of fact, identical with the views which were indicated by Sir B. Brodie's notation. Hydrogen, hydrochloric acid, and chlorine, were regarded in early times as bodies which formed a series with each other—hydrochloric acid being exactly halfway between hydrogen and chlorine.

Mr. F. O. Ward, in a letter since published in the *Chemical News*, attacks Sir Benjamin Brodie's position. He questions whether the volumetric relations of bodies are so symmetrical as is our present disposition to suppose. As regards the new method, he says the chemical world is invited to embrace a new theoretical system, which incorporates, as an essential part of its fabric, the affirmation that several bodies not yet decomposed, are compounds of a known with an unknown element; and further, as regards the known elements themselves, that they are the results, some of one, others of two or more "operations," strangely likened to so many "strokes on a bell." "It would ill befit a mere student like myself, of some of the simpler parts of chemistry, to criticise proposals brought forward by a recognised master of the science. Yet my admitted inferiority leaves me all the freer to confess that my dim conceptions of elementary matter, derive no light from the suggestion that in a 'chemical operation,' the evolution of hydrogen is attended, as it were, with one sound, and that of oxygen with two." "So, again, I may frankly avow, that to me the proposed

substitution of Greek for Roman letters in our chemical symbols and formulæ, seems likely to impart to our hitherto attractive science, an abstract of abstruseness uncompensated by any real addition thereby made to the profundity of our knowledge. If symbols of chemical combination and severance be needed, why not devise some simple forms of expression for the purpose, as, for example, marks of parenthesis, ordinary and reversed, the former for combination (H A), the latter for decomposition, H)(A. Surely this, or some equivalent expedient, would be more philosophical than the forcing into an artificial quasiconnexity of facts and conceptions so utterly incongruous as to be absolutely incomparable. As for the new fundamental definition of a chemical phenomenon, it is "an operation on the unit of space, the result of which is a weight." I confess that for me the play of words throws not the faintest ray of light on any of the familiar marvels of chemistry, such as solution, effervescence, crystallization, explosion, and all the numberless transformations of form, colour, combination, properties of which collectively make up our astonishing science.

In what sense is the above definition more luminous, more explanatory of the wonders amidst which we move, than if one should say conversely that a chemical phenomenon results from the operation of a weight (or weights) within given limits of space (and time). There is no limit to the multiplication of such abstractions, and if that now propounded gains acceptance I cannot see why to-morrow a new transcendental school may not be started, with a modified "fundamental definition," declaring a "chemical phenomenon" to be an "operation upon the unit of time, the result of which is a force."

Like my chemical betters, however, I wait, before finally judging the new system, its full and complete development; and I shall be found amongst its first and most grateful devotees, should it open up new spheres of really positive reasoning and research, and tend to facilitate "thought associated with experiment" (Faraday's pregnant phrase).

CHEMICAL COMPOSITION OF THE MUD FROM THE STREETS OF THE CITY OF LONDON, BY DR. LETHEBY.

It was first ascertained that the amount of moisture in the street-mud varies to a considerable amount according to the state of the weather, but it is rarely less than 35·3 per cent. of the weight of the mud in the driest weather—the average of ordinary weather being 48·5 per cent, and in wet weather it ranges from 70 to 90 per cent.

It is very probable, says Dr. Letheby, that the average proportions of horse-dung, abraded stones, and abraded iron, in the mud from the stone-paved thoroughfares, is about as follows:—

Horse-dung	57
Abraded Stone	30
Abraded Iron	13
	100

The mud was in every case so finely comminuted that it floated freely away in a stream, and the inference is that it would not subside to any great extent in a sewer with a moderate flow of water.—*Chemical News.*

CONSTITUTION OF THE PHOSPHITES.

Phosphorus acid was discovered by Sir H. Davy in 1812, and its salts (the phosphites) have been examined by Berzelius and H. Rose. Some papers were also published by A. Wurtz in 1842 and 1843. A. Wurtz asserts that the salts contain only the elements of one atom of water. M. Berzelius and H. Rose said that many, at least, contained the elements of two atoms. Mr. C. Rammelsberg (*Journal of the Chemical Society*, July) has examined the properties of phosphorous acid and the phosphites with a view to the solution of these and other questions. He has examined the following compounds of that acid:—

Phosphite of Barium.—Trichloride of phosphorus mixed with chloride of barium gives a precipitate of this salt on the addition of ammonia. Composition—$H_4 Ba_2 P_2 O_7$.

Phosphite of Strontium is a white crystalline powder containing two molecules of water which are given off at 200°. Composition $H_4 Sr_2 P_2 O_7 + 2aq$.

Phosphite of Calcium.—Same as the preceding salt, except that when dried at a gentle heat it loses one molecule of water.

Phosphite of Magnesium.—Is more soluble in cold than in hot water, therefore must be precipitated by boiling. Composition $H_4 Mg_2 P_2 O_7 + 12aq$. The twelve equivalents of water are expelled at 200°.

Phosphate of Nickel.—Green precipitate, $H_4 Ni_2 P_2 O_7 + 6aq$.

Phosphite of Cobalt.—Fine red precipitate, which becomes blue on drying at 250°. Composition of red precipitate $H Co PO_3 + 2$ aq.

Phosphite of Zinc.—$HZn PO_3 + 4$ aq.

Phosphite of Cadmium.—$3H Cd PO_3 + 3$ aq.

Phosphite of Copper.—Blue crystalline salt, $HCa PO_3 + 2$ aq.

Phosphite Iron.—(Ferric phosphite) a diluted solution of trichloride of phosphorus mixed with a convenient quantity of carbonate of soda, but still acid, is precipitated by iron alum. Composition $H_3 Fe P_3 O_9 + 9$ aq.

Phosphorous acid, therefore, forms two series of salts. 1st, Sodium, ammonium, cobalt, manganes, zinc, cadmium, copper, lead, iron, and magnesium ($H Mg PO_3$), which correspond with the potassium salt $HK_2 PO_3$). 2ndly. The barium, strontium, calcium, magnesium, nickel, and zinc salt [$H_4 Zn_2 P_2 O_7$]. The hydrogen of these salts cannot be replaced by a metal, they are not acid salts.

"I find it," says the author, "more accordant with the observed facts to assume that all phosphites contain their hydrogen combined with oxygen in the form of water, thus:—

$$\left\{\begin{matrix} R_2 P_2 O_5 \\ H_2 O \end{matrix}\right. \quad \text{and} \quad \left\{\begin{matrix} R_2 P_5 O_2 \\ 2H_2 O \end{matrix}\right.$$

The water existing in an intimate or intrinsic connection with the molecules $R_2 P_2 O_5$"

FORMATION OF ORGANIC ETHERS.

It has been known for some time that chloride of tin ($Sn Cl_4$) combines with alcohol, and on heating forms ether and chloride of ethyl.

If alcohol is mixed with an equivalent of acid, and if chloride of tin is then slowly added compound ethers are formed according to the formula:—

$$(C_2 H_6 O)_2 Sn Cl_4 + 2 C 2 H_4 O_2 = \left\{\begin{matrix} 2 C_2 H_5 \\ C_2 H_3 O \end{matrix}\right\} O + SnO + {}_2 HCl + HO$$

Benzoice ether has thus been obtained in almost theoretical quantities. Formice, acetic, butyric, palmitic, stearic, lactic, and tartaric ethers, have been produced in the same way.

Fire Clays.—Under the names nacrite, pholerite, and steinite, many different observers have noticed tabular crystals of rhombic form, compacted for the most part into plates and bundles, and usually of microscopic size. The researches of Johnson and Blake now show, first, that all these minerals are referable, with few exceptions, to one and the same species, for which they propose the name Kaolinite; and, secondly, that the common clays, or, at the least, their purer varieties, are little more than aggregations of crystals of the mineral in question.

Johnson and Blake have examined with the microscope some twenty different species of pipe-clay, kaolin, and fire-clay. In all these samples they have found a larger or smaller proportion of transparent plates of crystalline kaoline, and in most of the specimens the plates make up the great bulk of the substance. They account for the plasticity of clay from this cause.

The last number of the Proceedings of the Royal Society) No. 93) concludes the 15th volume, and extends from January 1866 to May 1867. It contains the following valuable communications:—

On the Genera Heterophyllia, Batterslyia, Palæocyclus, and Asterosmilia; the Anatomy of this species and their position in the classification of the *Sclerodermic Zoantharia*, by Dr. P. M. Duncan.

M. M. Milne, Edwards, and Jules Haime, have classified the Madreporaria. Dr. Duncan remarks, that although their classification is admitted to be the best, still there are great gaps in the succession of the genera, and that, moreover, some genera cannot be placed. The author goes on to state that his discovery of a genus "Asterosmilia," unites the Turbinolides and the Astraides. He describes the species—

A Tabular form of Analysis to aid in tracing the possible influence of Past and Present upon Future states of Weather, by S. Hoskins, will be read with interest by meteorologists.

"*Further Observations on the Structure and Affinities of Eozoon Canadense*," by W. Carpenter, is a further defence of this doubtful foraminifera.

"*On the Intimate Structure of the Brain*," by J. Lockhart Clarke.

In a paper on *Pyrophosphoric Acid, and the Pyro and Petraphosphoric Amides*, Dr. Gladstone remarks that Pyrophosphoric acid is, in the notation now generally adopted, $P^2 H^4 O7$, and that, in an examination of its ferric compounds, he found evidence of the existence, in solution, of a double salt, $P^2 Na^2 Fe^2$

O7 (Williamson's Ferricum fe = 18·66). A more remarkable fact is, that the complete ferric salt, and several other pyrophosphates, can exist in an allotropic condition. Thus pure P_2 fe_4 O_7, prepared by double decomposition, dissolves readily in dilute sulphuric acid ; but on heating the solution it separates in a form which is almost insoluble in the acid. When these allotropic salts are decomposed, the acid produced appears to have the ordinary properties. It is a pyrophosphate which is formed when oxychloride of phosphorus is attacked by a strong aqueous solution of an alkali.

Correspondence.

DEAUVILLE-TROUVILLE, CALADOS, NORMANDY.

(FROM A CORRESPONDENT).

I arrived at this charming watering-place on Wednesday last for the first time, and although I had often heard much in favour of it from various friends, I freely admit that I was agreeably surprised with both its natural and acquired advantages.

Deauville, which, thanks to the exertions of the Duc de Morny and our distinguished fellow-countrymen, Sir Joseph Olliffe, has sprung up into its present importance within the last six (!!!) years, occupies a considerable portion of the celebrated valley d'Auge, and is separated from the old seaport town of Trouville, by the river Touque. The beach of Deauville, which is composed of the finest sand, is an English mile and a quarter in extent. Just above the beach a grand terrace road has been formed, which is lighted by gas at night. Along the terrace some very handsome residences have been built, amongst others by the Duc de Morny, the Count de Gontaut-Biron, M. Arthur, the Prince Demidoff, Sir Joseph Olliffe, M. Boittelle, M. Donon, Mr. Breney, the Mayor, the Count de Choiseul, M. Poisson (Recevue Gen. de la Manche), Salamon (Mis de), E. Dalloz, dèputé, and many others. There are also within view a Catholic and a Protestant Church, which add much to scenic effect.

Sea-bathing can be enjoyed in Deauville during the season, which extends from July to the end of September, at any hour independent of the tide, machines drawn, when necessary, by horses being at all times at command, and the proprietary have lately, at a vast expense, erected admirable baths, where visitors can procure, at a moderate charge, either hot or cold, salt or fresh water ordinary baths, Russian baths, douches of all descriptions, together with medicated baths of every kind.

The views from Deauville, whether towards the sea or inland, are unrivalled—thus, in looking out to sea on a clear day, one observes Havre with its well-chiselled point, lighthouses, and harbour on the extreme right, whilst turning to the left the eye rests, in the distance, on the mouth of the Orne which leads to Caen.

Within a couple of miles of Deauville are the old and curious ruins of the Castle of Bouneville, the favourite residence and stronghold of William the Conqueror, and the neighbouring old church of Torque, the church in which his vassals took the oath of allegiance previous to his expedition to England, which resulted in the defeat and death of Harold on the battle-field of Hastings.

If, on the other hand, you turn your back to the sea, you will observe "The Terasse de Deauville," with its villa residences, backed up in the distance by the undulating and tree-clad hills of Deauville, which give a very picturesque appearance to the place, and which, by affording shelter to Deauville, render it a very suitable residence for invalids labouring under certain forms of pulmonary disease.

Deauville is well-supplied with abundance of pure water, brought down in pipes from the hills.

Many are the amusements which have been provided for visitors to Deauville—thus, it possesses a Casino, with its billiard, ball, music, reading and coffee-room, an excellent band from Paris plays twice each day at certain hours, and balls are held here twice each week. Deauville possesses also an excellent floating dock, in which there are at present several large vessels, a French war steamer, and two large yachts, one from England, the other from Russia, and it is only to be wondered that more yachts do not put into Deauville, where they can lie so snugly and securely.

The hippodrome, or race course, of Deauville is a mile and a-half in circumference, and is second to none in the empire ; it belongs partly to the proprietary, and partly to the Jockey Club of Paris, the most influential of whose members take a deep interest in the Deauville race-course.

Besides numerous furnished houses, Deauville possesses two very large and handsome hotels—the Hotel de Terrasse, and the Hotel de Casino, at either of which, even at the fullest season of the year, the visitor will be boarded for ten francs a day, and boarded and lodged for about thirteen francs a day, or even less by agreement by the week. Altogether, I look on Deauville as second to no watering place in France, with the exception of Biarritz, and I have seen them all; and Deauville has the advantage over Biarritz that it is more easily reached from either England or Ireland, a steamer plying between Havre and Deauville twice each day in the summer season, and performing, at a very moderate charge, each journey in about thirty-five minutes.

Sir Joseph Olliffe generally comes to Deauville in the middle of July, and remains during the season, and although he does not seek practice here, I understand he does not refuse to prescribe for any patient who may absolutely require medical advice when he is at Deauville, which, of course, attracts many of his patients and numerous admirers to Deauville for the bathing season.

The weather here at present is very fine, and although the sun is hot, there is a controlling sea breeze, which, to one coming from the cold and damp climate of Ireland, is really a most desirable change.

Deauville is at present full of very distinguished people, attracted here by the races, which are at present going on, by a troup of actors from the Palais Royal Theatre, and by Adelina Patti, who is going to give a concert to-night. It is rumoured that Patti is so pleased with Deauville that she is thinking of purchasing a bathing residence here.

Deauville-Trouville, Calvados, August 5, 1867.

"A LETTER FROM A DISPENSARY PATIENT."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Permit me to give the copy of a letter for insertion in your Journal, which I received from a dispensary patient :—

"If your onaur would be so kind to send me coddle ine oil I am very bad with sornis about my hart and a sprifin in the mornin I am carsley able to stand on my feet with coghing."

CHOLERA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—In your last issue, some inaccuracies appear in the report of the late cholera discussion before the British Medical Association, which you will kindly permit me to correct.

There was *no* difference of opinion upon the subject between my friend Dr. Mapother and myself. His paper was upon the "Topography of Cholera ;" mine was upon a very successful line of treatment adopted by me, and based upon my views as to the nature and pathology of the disease, published in your valuable journal, August 1, 1866.

I maintained that the disease was a contagion, probably communicated through the medium of air, water, or food ; that its development and diffusion depended upon certain atmospheric, hygienic, and individual conditions ; that the chief effects of this contagion were produced upon the sympathetic nerves, especially upon those presiding over the gastro-intestinal tract; that these nerves became powerless to discharge their functions while in contact with the morbid products of the disease ; and therefore the treatment indicated appears to be, to remove those injurious products, and give tone to those nerves.

With your permission, I shall shortly place before my Professional brethren, a summary of my paper, and the treatment which I pursued.—I beg to remain, dear sir, very truly,

P. C. LITTLE, F.R.C.S.I., &c.

SUDDEN DEATH OF DR. VICTOR BAZIRE.—On Wednesday last Dr. Lankester held an inquest at 28, Woburn-square, on the body of Dr. Victor Bazire, who expired very suddenly on Sunday morning. Death was foundto have been caused by the rupture of an aneurism. Deceased, who was only thirty-one years of age, has but briefly survived his talented master, Trousseau, the translation of whose work he was just finishing, enriched with many of his own annotations. His untimely end is greatly regretted by the medical profession generally, by whom he was looked upon as destined for a brilliant career.

Gleanings.

SCAVENGER ANIMALS.—The part played by certain mammals and birds in the removal of refuse, more especially in hot climates. is far more important than generally supposed. As regards India and the East, the chief actors in this great sanitary movement. or what might justly be designated Nature's first-class scavengers, embrace, among beasts, the jackal, hyena. domestic swine. dog ; and among birds, vultures. kites crowns, minas. and the well-known adjutant (*Leptoptilos argala*—Gmel.) I have noted many facts in connection with the habits of these useful animals in South-Eastern Europe North Africa, as well as Asia, and been strongly impressed with the belief that if the time should some when the most prominent actors in the scene became extinct. or greatly reduced in numbers, there will needs be some means of making good the loss ; for, most assuredly. if Eastern cities were at present denuded of their carrion quadrupeds and birds, there is no system of conservancy on the part of the human occupants at all equal to take their place. The nocturnal. bold. and sneaking habits of the jackal and hyena are well-known. The last is decidedly far less numerous, and hunts generally singly, whilst the jackal does so in packs. The one appears, however, frequently to accompany the other, for at night, among the discordant yelps of the jackal, may be heard the hoarser barks of the striped hyena. Over South-Eastern Europe, Central and Southern Asia, both are more or less plentiful, affecting also the mountainous regions to pretty high altitudes. It is said that the pariah dog assists them to rifle graveyards ; at all events, it is no uncommon circumstance to see the results of their depredations. One frightful example came under my notice at Rawul Pindee, where a grave in the cemetery was opened and a body torn to pieces by a troop of jackals. On the occasion in question they had removed several heavy stones placed above the body in order to prevent their attacks, and I noticed that, besides using their fore-paws in removing the soil, they had evidently lifted many of the stones with their mouths. Withal, however, these sacrilegious deeds are more than compensated for by the vast amount of scavenger work they accomplish. Although anything in the way of flesh, putrid or otherwise, is acceptable, I am not aware that the jackal betakes to the dung-eating habits of the dog, swine, and even sheep of India. The two first play an important part in the removal of the excreta in and around many Oriental cities, where no such institution as either a public or private latrine is known. Indeed, the swine of many parts of India are maintained entirely in this way, and driven daily to the purlieus of the towns. The domestic animal strongly resembles the wild species in its outward form, but its lean appearance and excessively loathsome habits, present an equally opposite contrast. Its flesh is very often "measled," that is, contains the germs of the tape-worm, which are supposed to be the result of its foul feeding. This circumstance came forcibly before my notice at Rawul Pindee, where the diseased flesh of the animal was sold in quantities to the soldiers. . . . No doubt, mutton is frequently contaminated in this manner, as, strange to say, the sheep, and even goats, of many parts of the East, take to the same abominable mode of feeding.—*Wanderings of a Naturalist in India, the Himalayas, and Cashmere. By A. L. Adams, M.D.*

TWO CHILDREN ATTACKED BY A MAD DOG.—An inquest was held on Saturday in Bethnal-green, on Edward Davies, a child of four and a half years old. On the 4th of last month the deceased and his brother were playing in the Old Ford-road, when they were attacked by a large dog, which flew at them and frightened them very much. The brother of the deceased was bitten. The dog was mad, and both children were taken ill. The other boy was in a hopeless state of hydrophobia, but the deceased had died, according to the evidence of the surgeon, from an effusion of serum on the brain brought on by fright. Verdict accordingly.—*Standard.*

THE EXPLOSION OF PETROLEUM OIL.—Among the persons seriously injured by the explosion at Bordeaux, the owner of the lamp establishment appears to be the greatest sufferer. His wrists are almost carbonised, and he has many serious contusions occasioned by his having jumped in his fright from the second floor staircase. The firemen were very fortunate in breaking his fall. Madame Huard is also injured. All the wounded were conveyed as promptly as possible to the hospital of St. André and to the military hospital, the former receiving as many as thirty-two patients, several of whom lie in a highly critical state. The Emperor Napoleon, when informed of the fire, immediately forwarded £200 for distribution among the sufferers —*The Standard.*

THE EX-EMPRESS OF MEXICO.—From the time of her retirement to Miramar the fate of this unfortunate princess has occasioned lively sympathy in all directions. As soon as the death of Maximilian was confirmed, preparations were made for her removal to Belgium, as we have already reported, and the journey was accomplished without difficulty. The *Mémorial Diplomatique* stated at the time that, "Notwithstanding the rapidity with which the journey from Miramar to Brussels was made, it occupied only two days, the health of her Majesty in no wise suffered from it. Indeed, we received from the Belgian capital the consolatory information that a slight inprovement has taken place in her mental condition in consequence of quitting her state of isolation." The *Indépendance* of Brussels added, "We learn that the Empress Charlotte has passed a good night, and is as well as is possible. Her Hajesty appears pleased to find herself once more at home and in the midst of her family. She drove out yesterday afternoon with the Queen round the park of Tervueren in a pony chaise." These statements were received with lively satisfaction, although many sinister rumours continued to prevail, rumours that, during the past week, have been put into shape in the following remarkable paragraph of the *Pall-Mall Gazette*:—"Since the Empress Charlotte has been transferred from Miramar to Brussels, the two medical men who up to that time had been attached to her person, and charged with the treatment of her case, have been replaced by a Belgian physician celebrated for the cures he has effected of persons regarded as hopelessly insane, and it is not impossible that in the case of the distinguished patient confided to his care new remedies may triumph over that mysterious illness which, after having destroyed the Empress Charlotte's reason, still menaces the remainder of her days. A writer in the *Figaro*, M. d'Auvergne, considers the present the proper moment for making known the opinions of well-informed Mexicans on the subject of the Empresse's illness, which may be said, by depriving Maxmilian of his ablest counsellor, to have precipitated the fate of the unfortunate Prince. M. d'Auvergne says (we quote him without assuming any responsibility for his statements):—'I have under my eyes several letters of different dates, written by persons in whose veracity I have the most entire confidence, by reason of their position and long experience in Mexico.' Here are a few passages from this correspondence:—'Do not doubt for one instant that this madness is the result of a crime, the contemplated commission of which was known beforehand. The two enclosed extracts from South American newspapers which speak of the Empress having been seized with attacks of insanity on board the packet-boat when nothing of the kind had happened, will be a revelation for you. Even if symptoms of insanity had at this time manifested themselves, the circumstance could not have been known on this Continent when the Empress was still at sea.' Another letter says:—'Her Majesty was warned by a notice found in her dressing-case at Vera Cruz that her life was menaced by the hand of a so-called friend. She, nevertheless, embarked without showing the slightest outward sign of mistrust. She, however, avoided being alone with at least one member of her suite throughout the voyage. She took nothing beyond the ordinary repasts served on board the ship, and one day even refused a cup of chocolate which had been specially prepared for her. It is certain that she mistrusted the persons around her, either from some instinct of her own or by reason of the caution she had received, and which some time later she unfortunately neglected.' 'The poisoning,' says another letter, 'was accomplished during the Empress's voyage to Rome. There is no trace of any previous attempt having been made, and if one had been made it must have proved abortive. A second dose was, no doubt, given the night before, or the morning of the audience at the Vatican. A few grains more and death would have been inevitable. I find in the statement published in the European newspapers all the symptoms of the Vaudoux.'"

A LETHARGY.—A man is now lying in the St. Jean Hospital. Turin, in a complete state of lethargy. He is quite insensible to pricks from needles, and the soles of his feet are also without feeling Some shocks of electricity have alone produced an effect on him. He is twenty-four years of age, and for the last forty-seven days has lived on milk passed through his nose into the œsophagus.—*Standard.*

Medical News.

ARMY MEDICAL DEPARTMENT, *August 9th*, 1867.—The Director-General presents his compliments to the Editor of the MEDICAL PRESS AND CIRCULAR and begs to enclose a list of the candidates of Her Majesty's British service, who were successful at the Competitive Examination in February last, and who have passed through a course at the Army Medical School, showing the combined results of the examination.

Name.	Studied at.	No. of Marks.
Bredon, R. E.	Dublin,	5570.
O'Reilly, T.	Dublin,	4753.
Fairland, E.	London,	4620.
Murphy, R. P.	Dublin,	4370.
Townsend, E.	Cork,	4238.
O'Reilly, J.	Dublin,	4060.
Wheeler, W. J.	Dublin,	3816.
O'Flynn, D. J.	Cork,	3715.
Olden, D. L.	Dublin,	3683.
Williams, J.	London,	3608.
Cogan, T. S.	Dublin,	3521.
Supple, J. F.	Dublin,	3478.
Parkinson, R. C.	London,	3397.
Moore, J. H.	Belfast,	3293.
Irving, G. C.	Dublin,	3290.
Tolinie, T. C.	Glasgow,	3268.
Wade, N.	Dublin,	3262.
Roche, A. W.	Dublin,	3240.
Purcell, G. C.	Dublin,	3163.
Croker, J. R.	Dublin,	3026.
Morgan, J. W.	Dublin,	2905:
McAleoy, R. P.	Belfast,	2662.
Holmes, T. J. R.	Dublin,	2574.
Kilroy, M. A.	Dublin,	2435.

UNIVERSITY OF LONDON.—The following are lists of candidates who passed the respective examinations indicated :—

ANATOMY.

First Class.—Richard Lawton Roberts (Exhibition and Gold Medal), University College; William Richard Gowers (Gold Medal), University College.

Second Class.—Edwin Rayner, B.A., University College.

ORGANIC CHEMISTRY AND MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

First Class.—John Davies Thomas (Exhibition and Gold Medal), University College; Richard Lawton Roberts (Gold Medal), University College.

MATHEMATICS AND MECHANICAL PHILOSOPHY.

First Class.—John Hopkinson (obtained number of marks qualifying for Exhibition), Owens.

CHEMISTRY AND NATURAL PHILOSOPHY.

First Class.—John Hopkinson (Exhibition), Owens; Arthur Robinson, Owens.

Second Class.—William Thorp, Royal School of Mines; James Bottomley, B.A., Owens.

Third Class.—James Barry Ball, University.

BIOLOGY.

First Class.—Arthur Robinson, Owens.

Second Class.—Francis James Carey, M.A., Guy's Hospital.

Third Class.—James Bottomley, B.A., Owens.

CHEMISTRY AND NATURAL PHILOSOPHY.

First Class.—Arthur Richard Saunders, University College.

Third Class.—Edward Bibbins Aveling, private study; James Barry Ball, University College Hospital; William Williams, Guy's Hospital; Joseph Theodore Ingoldby, Guy's Hospital; William Whitchurch Taunton, University College; Thomas Jones, Guy's Hospital.

BIOLOGY.

First Class.—John Mitchell Bruce, University of Aberdeen.

Third Class.—Edward Bibbins Aveling, private study.

WE understand that Dr. Jameson has retired from his position of surgeon to Mercer's Hospital in consequence of his increasing midwifery practice. Dr. John Morgan has been appointed to the vacancy made by Dr. Jameson's resignation.

CATTLE PLAGUE INQUIRY.—The last official return states that for the week ending the 3d August no cases of cattle plague were reported from any part of Great Britain. The total number of cattle reported to have been attacked in Great Britain since the commencement of the plague is 278,740, and 56,947 healthy cattle have been slaughtered to prevent the spread of the disease.

THE INTERNATIONAL MEDICAL CONGRESS.—The French journals state that about 600 names have been given in, 350 of these being those of foreigners, and that there is no doubt the numbers will rapidly increase. As to the memoirs, papers, &c., they have arrived in such excessive abundance that the first duty of the committees will be the delicate one of determining which of the innocents shall be massacred.

THE New Vaccination Act received the Royal assent on Monday, and was issued on Wednesday. It comes into operation on the 1st of January next.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Every MS. should bear the Name and Address of the Sender.

Dr. McGrigor Croft.—Your letter shall appear in our next.

A Subscriber.—1. Watson's Practice. 2. Mapother's Physiology. 3. Churchill's Midwifery. Both books are over diffuse.

Inquirer, Scarboro.—No person except an indentured apprentice, or a certificated assistant is legally entitled to dispense. This rule is not, however, always enforced.

Student.—1. The book you mention is published by Messrs. Churchill and Sons. 2. You will find all the information required in our Students' Number, September 19, 1866. For the new bye-laws and regulations see Students' Number for 1867, which we hope to publish early in September.

Dr. B.—Your request shall be attended to, and any facts we can collect, likely to assist your investigations, forwarded.

H. T. T. Portland is thanked for his kind wishes, which are most gratifying.

Births, Marriages, and Deaths.

BIRTHS.

DODGSON.—On the 7th inst., at Cockermouth, the wife of Henry Dodgson, M.D., of a daughter.

EAMES.—On the 5th inst., at the Asylum, Letterkenny, the wife of James Alexander Eames, M.D., F.R.C.S.I., Resident Medical Superintendent, of a son.

REID.—On the 7th inst., at Pembroke, the wife of Douglas A. Reid, M.D., of a son.

MURRAY.—On the 9th inst., at Green-street, Grosvenor-square, the wife of G. C. P. Murray, M.D., of a son.

GREENWOOD.—On the the 10th inst., at Penryn, the wife of N. Greenwood, L.R.C.P.L., of a son.

MARRIAGES.

LAWRENCE—SNEAD.—On the 8th inst., at Llangynidr Church (after banns), Arthur Garnons Lawrence, M.D., of the Cedars, Chepstow, third son of the Late Henry Lawrence, Esq., J.P. for the Counties of Carmarthen and Pembroke, to Edmundtina, elder daughter of the late Jas. Prosser Snead, Esq., of Pwll Court, J.P. and D.L. for the County of Brecknock, and Granddaughter of the late Colonel Gwynne, of Glanbrane-park, Camarthenshire.

JEAFFRESON—CAVELL.—On the 9th inst., George E. Jeaffreson, M.R.C.S., of Framlingham, to Helen Anne, second daughter of the late Edward Cavell, Esq., of Bawdsey Hall, Suffolk.

BARTLEET—BERRY.—On the 13th inst., T. H. Barleet, M.B., of Colmorow, Birmingham, to Louisa Ann, only daughter of Samuel Berry, Esq., of Edgbaston.

ROBERTSON—JONES.—On the 7th inst., at Moreton Pinkney, Northants, by the Rev. W. T. Browning, M.A., assisted by the Rev. Gordon Robinson, B.A., brother of the bridegroom, the Rev. W. H. Robertson, M.A., Minor Canon in Durham Cathedral, elder son of W. H. Robertson, Esq., M.D., J. P., of Buxton, to Frances Henrietta, younger daughter of the Rev. Francis Jones, M.A., Incumbent of Moreton Pinkney.

DEATHS.

MACINTIRE.—At Peshawur, of cholera, Deputy Inspector-General Macintire, Indian Medical Service.

MEYMOTT.—On the 24th of June, at Sydney, New South Wales, Chas Meymott, Surgeon, formerly Surgeon to the Horsemonger-lane Gaol, and to the South London Dispensary, aged 54.

NEWNHAM.—On the 3rd inst., Lewis Newnham, M.D., of Camberwell-road, aged 40.

LORIMER.—On the 5th inst., Robert Lorimer, M.D., of Tyne-park, Haddington.

RANSOME.—On the 6th inst., at Flixton, Lancashire, J. A. Ransome, F.R.C.S.E., of St. Peter-square, Manchester, aged 62.

HEPWORTH.—On the 6th inst., J. D. Hepworth, B.A., L.S.A.L., of Pudsey, Leeds, aged 69.

Advertisements.

LONDON NURSES' INSTITUTE,
42, South Audley-street, Grosvenor-square, W.

TRAINED NURSES (Medical, Surgical, Mental, and Monthly), can at all times be obtained from this Institute.

Hospital Appointments by special arrangement.

Letters and Telegrams should convey the nature of the case to be attended.

Apply to the Manager or Matron. T. HAMILTON, Manager.

WOODHALL Spa and Hotel, near Horncastle, Lincolnshire.—This well-known Mineral Spa, which has been for many years highly recommended by the Faculty for the cure of Strumous Complaints, Tumours of various kinds, Rheumatism, Gout, Epilepsy, and Specific Constitutional Diseases, especially those of the Skin, is now in first-rate order. The Hotel replete with every comfort, and the charges moderate. Hot, cold, shower, and hip-baths always ready. This Spa contains more Bromine and Iodine than any known water; and its curative powers are unsurpassed.

The Woodhall Spa Station of the Great Northern Railway closely adjoins the beautiful grounds of the Hotel. The water will be supplied bottled, or in jars, on application to the Bath-man.

June 1, 1867.

Original Communications.

CHOLERA THEORIES AND THE TREATMENT FOUNDED THEREON.

IV.

THE terrible epidemic of diarrhœa and cholera which last year visited London, ought to have taught us some important lessons; we fear, however, that all it has done in this respect is to enforce the truth of those conclusions, to which our experience of the epidemics of 1832, '49 and '54, had led us, viz., that the chances of safety in presence of the epidemic influence are proportionate to the thoroughness with which the conditions known to conduce to general health are established, and especially in proportion to the purity of the air breathed and of the water drunk. In the direction of preventive measures only, has a single step in advance been taken by the combined effort of the Medical Department of the Privy Council, and the great body of the London physicians; in the direction of successful treatment the great experience of the pestilence last year in London has not enabled them to make even a single step: on all sides there is the same confession of ignorance and helplessness, so appallingly impressive in previous epidemics; the same repetition of the same methods, the same futile experiments, and the same fatal results. Perhaps we are wrong in saying so absolutely, that no advance has been made, for indeed it is something to become clearly conscious of our ignorance, and something more to make public confession of it: it is true the number of those who have achieved this something, and who plainly and practically admit that drugs are useless —and worse than useless—as remedies for choleraic collapse is small; but it is an increasing number, and in its increase we think we descry the dawn of endeavours after modes of treatment, which, whatever may be their shortcomings, will at least have the sanction of science and common sense. There can, we apprehend, be little doubt, but that in a vast multitude of cases the fatal issue has been hastened by "treatment": calomel, opium, strychnine, sulphuric acid, and castor oil, as well as injections into the veins, are chief among the countless number of agents, the powers of which, if we have read the literature of cholera rightly, have been sorely abused. It is therefore something, as we have said, to testify as follows:— "The clinical history of the present epidemic, also shows that medicine is still as helpless (I use the word advisedly) as it ever has been in controlling the course, and reducing the fatality of the fully developed disease. . . Medicine has not yet discovered the means of rescuing an individual from the advanced stages of cholera."[1] Referring to cholera in Malta during 1864, it is stated in the Sanitary Report of the Army Medical Department, that "the Pharmacopœia and medicine stores are well foraged, but to no good end," and that "the experience of the epidemic tends to the inference, that no known system of treatment hitherto adopted has but the slightest pretensions towards cure."[2] These conclusions have obtained practical expression at University College, London, where during the recent epidemic most of the cholera patients were treated without drugs, and where, after various plans had been tried, the no-drug treatment was the one most in favour.[3] The Royal College of Physicians, not only implicitly abandons the use of drugs, but declares itself helpless: the Lords of Her Majesty's Privy Council consulted the College respecting the issue of instructions to Captains of Merchant Vessels, "how they should act when proper medical attendance cannot be procured, so as to provide for the health of their crews against attacks of cholera." The reply of the College (dated July 4, 1866) consists mainly in the recommendation of hygienic and precautionary measures, their directions for the treatment of cholera itself being contained within five lines, which are as follows:—"The patient should be strictly kept in the recumbent position, he should be allowed to drink water freely, and should be abundantly supplied with fresh air. Warm applications should be used to the feet and legs, and a mustard poultice should be applied to the pit of the stomach. Cramps may be treated by rubbing the affected parts with the warm hand." Here is the sum total of advice which the collective wisdom of a Select Committee of the Royal College of Physicians in 1866 can offer the Lords of Her Majesty's Privy Council concerning the treatment of cholera! But surely even this advice is better than the prescription of medicines which experience proves to be useless, not seldom injurious, and generally more or less distressing to the patient.

The authoritative advice given by the College receives implicitly a general sanction from Dr. Macpherson, whose large official experience of "Cholera in its Home" imparts great weight to his opinion. His work,[1] published this year, espouses no theory, and, therefore, the statements it contains are the more likely to be impartial and reliable. It is, indeed, an invaluable compendium of facts and opinions, and is admirably adapted to cool the ardour of young enthusiasts, and to enable new theorists to test the value of their doctrines by the light of extensive experience ripened into wisdom. The main object of his pages, the author says, is "to show what medicine can, and what it cannot, effect in cholera; and their end will have been answered if they tend in any degree to check the unreasoning adoption of every possible remedy (most of them being in reality old ones resuscitated) which was displayed when cholera lately threatened us, and which, it is to be feared, will again manifest itself should cholera visit us."[2] Having recounted the failures of one remedy after another, he quotes the following melancholy testimony of Bouchardat: "I was on the mournful field of battle where I saw a crowd of victims fall around me, without, however, seeing the origination of, I will not say an efficacious remedy, but even one single discovery, or scientific and progressive thought."[3]

Thus it appears that according to the confessions of both the civil and military medical authorities, the instructions of the Royal College of Physicians, the declaration of the most authoritative writers and the most recent practice in London, that no further approach to a discovery for a cure of cholera has been made in 1866 than was made when England was surprised by the great epidemic of 1832, and that the whole result of the experience of the recent pestilence in the metropolis, which has destroyed 8000 persons, and occasioned the expenditure of £70,000, is a mere repetition of the lesson already learnt—viz., lessen the spread of the disease by establishing the best possible conditions of general health. Such are the results of empiricism working in the dark, and of the application of theories, the worthlessness of which experience has but decisively attested. One thing, however, is clear: so long as physicians know nothing of the real nature of the disease, so long are they likely to remain powerless to remedy it. It is true that valuable remedies have been stumbled on by accident, but it is none the less true that the healing art can make secure, and orderly progress only in proportion as its methods are dictated by knowledge of the essential nature of disease. Therefore, until the mystery of cholera is penetrated and dispelled we cannot hope to cope with it successfully. In other words, until we know both its remote and proximate causes we shall remain alike ignorant

1 Eighth Report of the Medical Officer of the Privy Council, 1866, p. 367. (Report by Mr. John Netten Radcliffe on the Sources and Development of the present Diffusion of Cholera in Europe.)
2 Pages 344-5.
3 See Hospital Reports in MEDICAL PRESS AND CIRCULAR, October and November, 1866.

1 Cholera in its Home. With a Sketch of the Pathology and Treatment of the Disease. By John Macpherson, M.D., late Deputy-Inspector General of Hospitals H.M. Bengal Army, and formerly of the European General Hospital, Calcutta, &c. London: John Churchill and Sons.
2 This was written in April last.
3 *Annuaire de Thérapeutique* for 1850.

how to treat it, and how to prevent it. If so, the men of theories—men having "crotchets"—though generally regarded as dangerous, are precisely the men most likely to point out the way of deliverance from the fatal demon still hovering about us. We, therefore, resume our notices of some of the theories which have been lately propounded.

Dr. Shrimpton, an English physician practising in Paris, has just published an elaborate work[1] in which he says he was led "long since to think that the nervous system of organic life might be the seat of this terrible disease," and that he believes he can now "trace the influence of cholera even beyond the last ramifications of the nervous system, and of the circulation, *to the elementary cells of the whole economy*" (pp. 57-8). "The nature of the disease appears to consist in an altered state of vitality of these cells which are undoubtedly affected in cholera," (p. 58). "Without doubt," he says, "our celebrated micrographs will find these cells altered in their structure, as they have already found the globules of the blood shrivelled up in cholera," (p. 59). As he tenders no evidence in support of his doctrine, but merely alleges that it explains "all the phenomena of cholera," among which he includes "the suspension of all the secretions," we shall not attempt to discuss it. We must observe, however, that all the secretions are not suspended, and that on the contrary both sweat and mucus are secreted in enormous abundance; and we are somewhat astonished to find that Dr. Shrimpton, whose opportunities of studying the phenomena of cholera have been great, should not only have fallen into the common error of asserting that all the secretions are suspended, but should allege that the abundant flakes of mucus forming part of the rice-water discharges are "coagulated albumen;" and that the temperature of "the expired air of cholera patients," and, indeed, the temperature of their bodies "is four or five degrees below that of the surrounding temperature" (p. 16). Why, even the temperature of a corpse is not below that of the surrounding air, and if Dr. Shrimpton will refer to the above mentioned report of the Army Medical Department (p. 341) he will find, as the result of careful thermometric investigations respecting the heat of the breath and of the body, that "the average fall from normal temperature [97°] into collapse was 11°", so that the average temperature of patients in collapse, deduced from measurements of the heat of the breath, and of the surface of the body, was found to be 86°.

(To be continued.)

SUGGESTIONS ON THE IMPROVEMENT OF THE PROFESSION.

By ISAAC ASHE, M.B.

(Abstract of Paper read before the Meeting of the British Medical Association, held in Dublin, August, 1867.)

Dr. Isaac Ashe presented a paper to the Association, on the general interests of the profession, and the improvement of its status.

He considered that the under-estimate of professional services at present exhibited by the army and navy authorities, the boards of guardians throughout the country, as well as clubs, and very frequently private patients, was due to the overstocking of the profession by an inferior class of practitioners, who entered into competition on low terms against men of better position and education, who constituted the majority of practitioners. The public were not competent to decide who were well-qualified and well-educated practitioners, and who were not. They could not estimate the different values of the M.D. of London and the M.D. of Lambeth. Yet, until men of inferior general and professional education were excluded from the profession, it would be in vain to seek from the public or the Government authorities a just recognition of its services, for these men were always ready to give their services for whatever terms might be offered.

The public were thus injured as much as the profession, and the benefits they would receive from the exclusion of the lower class of practitioners from the profession, would more than compensate them for the advantages which the profession would receive at their expense.

How were these men to be excluded for the future? They found entrance in consequence of the rivalry of the different licensing bodies in the struggle for fees. Nor was it of any use for certain corporations to attempt to maintain a high standard at present, for candidates whom they rejected, or who were afraid of their examinations, could easily find entrance elsewhere. Some parties in the profession had felt the evils of this state of things so strongly that they had even proposed that there should be but one examining and licensing body in the entire kingdom, but he would wish to see the different corporations maintained uninjured, and thought that if the competition for fees could be removed, the rivalry that would remain, namely, that for the high character of the diploma of each, would be beneficial both to the profession and the public.

He proposed that this should be accomplished by the General Medical Council receiving the fees of all candidates for a licence to practice a branch of the profession for which they did not already possess such a licence, fellowships, or other additional licences in any branch remaining as at present. The Council should give a circular receipt to each candidate, stating the sum he had paid, and each body to which it was presented should endorse this with a statement as to whether the candidate had been passed or rejected by them, and in the former case how much of the fees paid had thus been utilised. Marking the fact of a candidate's rejection would necessitate his return to the same body for re-examination. Out of the fees so received the Council should pay to each licensing body a fixed annual sum, irrespective of the number of candidates passed or examined, and to ensure the colleges against loss, this sum might be taken at the annual average of the fees received for such first licences by each during the ten years now last past. The number of students was rather diminishing of late years, and would probably continue to diminish, as the tendency of regulations was to become stricter, hence such a proposal as this was rather to the advantage of the Colleges than otherwise. No doubt as students diminished in number, the fees charged by the General Council would have to be raised, but the additional charge might be regarded by the candidate as an insurance paid against unfair competition in his profession afterwards, and this being removed, he would find his emoluments increase in proportion, for the consumer,—*i.e*, in this case the public, pays for all, and would in the present case find that he received a proportionate advantage.

It might be said that foreign diplomas would then flood the market. He proposed that foreign diplomas should be recognised only when presented by *bonâ fide* foreigners; this was all that international courtesy could fairly ask, and would be a compromise between the General Council and the Government. The competition of foreigners could never assume very formidable proportions. No foreign state could expect that Englishmen should be allowed to practise in England, if they had shirked the strictness of an English examination.

Quackery was a difficult subject; individual liberty must be protected; but he thought the practice of quacks contained within itself a hint as to the true remedy. They all, or 99 per cent., derived their gains from the sale of their nostrums. Nobody thought it a restraint on individual liberty to prohibit the sale of ardent spirits except under licence. Let the same method be adopted with regard to the sale of drugs, not poisons merely, as provided by the recent Pharmacy Act. Let a licence from the Quarter Sessions bench of magistrates, on the recommendation of two neighbouring medical practitioners, be necessary to legalise the sale of medicines, or preparations professing to be medicinal, by any person not on the Medical Register

1 Cholera; its Seat, Nature, and Treatment. London: John Churchill and Sons.

or the Pharmaceutical Register; such an enactment would be as beneficial to the genuine druggist, and to the public, as it would be to the profession. The quack practitioner could then write prescriptions for any person whom he could induce to take them.

General education was the instrument which would be most important for the future elevation of the profession. Preliminary examinations were for the most part a mere farce at present. A dozen pages of Greek and twenty of Latin, a sum in arithmetic, and a proposition in Euclid, that was the education of a gentleman and a member of a learned profession; if they could not do so much well the examiner could let them off easy. Nearly all the corporations would accept the certificate of any other licensing body, so the minimum came to be sufficient under all circumstances. Was it fair to the highly educated majority of practitioners that men of this stamp should be admitted into their ranks to compete with them? He would be glad to see the General Medical Council take preliminary examinations altogether into their own hands. What had the colleges to say to it? They were competent judges of a good professional education, but not necessarily of good general education, except in the case of the universities. The council might refuse to admit upon the Register of medical students any person whose general education had not satisfied them; he thought their powers went so far. If any college sought for higher education than the Council prescribed, and some certainly would, they might still demand it; but none could then accept less. The Council should have their own examiners in general education, and pay them fixed salaries.

He thought the preliminary examination ought to be such as would test a man's fitness for the special pursuit of medicine, and such as would require an education specially framed to develop the qualities needed for that pursuit, and extending through a course of years, and not through a three months' grind merely. These qualities were—

Habits of patient thorough investigation.

Habits of minutely accurate observation.

The power of reasoning correctly from effects to causes—*i.e.*, from signs and symptoms to diseases.

The classics were the best study for developing the first of these. Not some particular author merely, but an extended course of reading; the knowledge of the language being tested by giving the candidate some passage which he should be unlikely to have specially prepared.

English spelling, geography by the map, and field botany, would be perhaps the best studies for developing the second. English composition, a branch of study at present almost wholly neglected, was of the utmost importance as conferring the power of clear, consecutive, accurate thinking, and of correct expression.

The physical sciences would be the best study for developing the third, their very object being to trace effects to causes. The mathematical sciences would be a necessary preparation for these.

He was greatly dissatisfied with the ultra-classical education at present afforded by the public schools; so indeed was nearly everybody except the teachers; but their deficiencies were most glaring where medicine was to be the boy's future study. A university education was, of course, highly to be desired, and would pay afterwards in most cases, but it required more time and money than could usually be spared by young men intending to study medicine.

He proposed that the profession should institute a great public school for lads who are to be brought up to the medical profession; and that the whole course of study should be co-ordinated to the one great end of developing the talents and qualities of mind which would be most valuable to the future medical man.

The bearing of different studies on such an end could only be appreciated by a physician. A clerical educator of physicians would be the *ne plus ultra* of absurdity. He suggested a course somewhat of the following description:—

First year.—English spelling, geography from map, study of English words; English composition; Latin words.

Second year.—Latin authors; arithmetic, geometry; Greek words.

Third year.—Greek authors; algebra, trigonometry.

Fourth year.—Applied mathematics, viz., mechanics, hydrostatics, optics; astronomy; the French language.

Fifth year.—Zoology, botany, meteorology, physical geography; the German language.

Sixth year.—Geology, chemical physics, chemistry.

A boy might enter the school at twelve and leave at eighteen, in time to pass his professional examination at twenty-two, which was too young rather than otherwise for such a profession as medicine. These six years would be much better spent as above proposed than in apprenticeship, even if a general practice was what was proposed for after life. A young man would gain more practical knowledge in one year as a qualified assistant, having first studied theory carefully, than in five years of apprenticeship before such study.

Such a school education as above proposed would no doubt be expensive, but if 100 gentlemen were to undertake to send their sons, he thought it might be accomplished for from £60 to £70 a-year. He suggested the formation of a company of professional men, with 2500 shares of £10, £1 to be paid up to try an experiment in a rented building, and the remainder to be reserved for a building fund, should such experiment prove successful.

ON THE TREATMENT OF EPILEPSY BY ARTEMISIA VULGARIS AND CARDAMINE PRATENSIS.

By P. O'ROURKE, M.D.,
MEDICAL OFFICER ENNISCORTHY WORKHOUSE.

THE importance of affording relief to that most afflicted class of the community, epileptics, induces me further to report on their treatment in continuance of that which you published in the MEDICAL PRESS AND CIRCULAR of the 17th January, 1866.

At that time Thomas Whitty, Mary Toole, Bridget Doyle, James Duffield, Sarah Sheridan, and Mary Magee, were using the "artemisia preparation," and Betty Mernagh the "cardamine pratensis."

Toole, Doyle, Sheridan, and Magee, have left the house in good health, neither having had any recurrence of the epileptic seizures for a long time before leaving. It was impossible to get Whitty under regular treatment, as he left the house frequently on the slightest interference with his habitual ill temper. Duffield has been partially benefited; his attacks, which are now slight, occur but rarely.

The new cases admitted since my last report are:—

No. 23. Mary Swayne, aged 28, admitted on the 24th March, 1866, very delicate, intelligent, good-tempered, not easily excited, and very amenable; fits very severe, and frequent; illness supposed to be hereditary, as her mother was a confirmed epileptic for many years, and is the next case.

24. Mary Swayne, aged 77, admitted into the epileptic wards with her daughter, the last case; a very small person, emaciated, weak-minded, voice indistinct, owing to partial paralysis scarcely able to walk, badly clad and filthy. After being properly cleaned and cared for, both were put under treatment, and the most marked improvement as to habits and disease had taken place in each, but nothing would induce them to remain. They took their discharge to return to their confirmed habits of begging.

25. Ellen Kelly, a farm-servant, aged 20 years, admitted into the Infirmary on the 23rd of October, 1866, being deeply and severely burned over the face, ears, and scalp, from having fallen into the fire during an epileptic attack. She was healthy and robust, otherwise not imbecile. She was treated for those extensive burns by having the whole surface covered over with prepared cotton, soaked in liniment of lime, to which some oil of turpentine and chloroform were added. These were kept on without

removal for a considerable time until the parts began to heal. About three weeks after admission, she had so severe and violent a fit that three persons were required to hold her. During the seizure the burned surfaces bled so profusely that the bed-clothes were saturated with blood. The sores gradually healed. The fits recurred in a week, when she had three within twenty-four hours, as violent and severe as before. She was removed to the idiot wards and put on the "artemisia preparation" as usual. The fits were less severe, and passed off without any assistance. She had no return for five weeks before she left the house, as her mother would not leave her any longer. A near relative was similarly affected.

26. Catherine Finn, aged 16 years, admitted on the 4th March, 1867; stout, and very healthy; had for the first time an epileptic attack about four years back, and a second, about two years ago, while sitting at the fire, into which she fell. The fits then recurred three times a week for a year and a half; went to service about twelve months back, but had to leave on account of her illness. She was put under the usual treatment, and is improved very much, being now attacked once a month. Continues under treatment.

27. Anne Murphy, æt. 25 years, admitted on the 22d of April last, as a harmless idiot from the Wexford Goal where she was committed as a dangerous lunatic on the 14th of March, 1865. Soon after admission had an epileptic seizure, which was very severe and long continued, requiring two or three persons to hold her, the fit recurred the next day—she was incapable of doing or knowing anything, could not feed herself, and unconscious of any natural call; in fact she was perfectly idiotic and apparently dumb. On inquiring from the medical officer of the goal, it appeared "she was attacked with fits at night three or four times a fortnight, but only once during the day time whilst in gaol. It required two or three persons to attend to her and keep her clean. She had no feeling whether she would be dressed or go naked." I put her under the usual treatment, and she has had not a fit now more than two months. She is become intelligent, speaks freely to those around her, can feed herself, mend her clothes, and attend to the natural calls as carefully as possible. I learn she has been epileptic for many years, and imbecile. The cause is supposed to be a hereditary and immediate one, owing to the shock she got on account of her mother having committed suicide. This sad event had such an effect on her, that she strayed naked through the country, and was found on the railway by the police near Ferns, and subsequently committed as a dangerous lunatic to the Wexford Goal.

No. 28. Anne Connors, ætat. 24 years, admitted on the 5th of June last, of a strong and robust constitution, with partial epilepsy, was violently convulsed, and trembled not unlike severe palsy, during the seizure; she was not conscious, but could speak. For five weeks before admission the fits recurred every fifteen minutes, and lasted five or six, and were most distressing. She stated she was very ill before she was attacked with something like fever and hiccup, and was very bad for six weeks. When she got better and was relieved, the shaking and convulsions commenced. On admission, a large sinapism was applied to the nape of the neck, and between the shoulders; a colocynth and hyoscyamus pill every day; put her on the "artemisia beer" three times a day as usual, and after twenty-four hours she had no return of the attack, and discharged on the 10th of July from the idiot ward to the infirmary, for chronic ophthalmia and inflammation of the eye-lids.

There are only remaining under full artemisia treatment, taking the full quantity this date, Catherine Finn and Anne Murphy; James Duffield taking the preparation occasionally.

It has been suggested that a public medical library could be collected with great advantage out of the College library in Calcutta.

UNIQUE CASE OF SUPPOSED THORACIC ANEURISM.

By W. H. SANDHAM, M.R.C.S.L., Cork.

Mr. J—— L——, Cork, æt. 62, low in stature, stout, square-built, florid, fresh and healthy in appearance, jolly, courteous and kind in manner, and a general favourite, fourteen years ago was pronounced by a medical man of eminence to have heart disease of such a nature that his life was not worth an hour's purchase. This opinion was corroborated by two other medical men of ability to whom he was introduced by the first physician, and they, or one of them, directed, so imminent was his case considered, to have his journey to Cork divided, as it was probable he had not many hours to live.

These opinions, and the fact of Mr. L. having lived and enjoyed himself grouse shooting, yachting, &c., *for fourteen years after*, makes his case a very interesting one indeed, not only to the profession, but very much so to his friends, and all who knew him in Cork, and, therefore, I am induced—having been his medical attendant for the last month and three days of his life, and being present, his hand in mine, when his sufferings terminated—to give the history of the case.

Two years before his death, I attended Mr. L. for a very severe attack of sciatica, during which, to use his own words, "he suffered tortures"—which I cured by galvanism. Some time after this he was taken ill in a hotel in Liverpool at night. He became so frightened and agitated that he got out of bed, started for Cork, and never broke the journey till he called for me, and drove me to his house, there he expressed his fears that it was his heart was now at him.

He was suffering from pains and uneasiness under and around the left nipple. Pulse steady, tranquil, and 70—flatulent distension of stomach and colon. I *minutely* examined heart and lungs; both lungs were resonant all over on percussion, and the respiratory murmur distinct. The heart's systolic and diastolic sounds were distinct and normal. The only thing wrong I could discover in the vessels proceeding from the heart was a bruit, or slight bellows murmur, in the left carotid. Having found the lungs and heart in this condition, I then gave it *as my decided opinion* that *his heart was perfectly healthy*, and traced his evident dyspeptic attack to the eating of an overdone fresh beefsteak. He became composed and satisfied, as he before suffered in a similar way from a like cause. He was up and out next day, and quite rid of this attack in three or four days.

After this, up to the time of his last illness, which Mrs. L. assured me commenced the January before, every one was pleased to remark how well he looked—fat, rosy, fresh and jolly in appearance, and well able to superintend his vast business, being a director of a gas company, and manager of a bank. Whether it was wise of him to so strain his mental faculties, which were of a superior order, the sequel may demonstrate.

One month and three days before his death I was called in, and found him in his bedroom suffering from paroxysms of dyspnœa most distressing to witness; his skin was normal, but, from suffering, sometimes bathed in perspiration, his tongue perfectly clean, bowels regular, but very tympanitic; pulse steady, calm, full, and regular, 72 to 80, never more throughout his whole illness, or the most severe paroxysm. This I beg my readers particularly to note. In fact, this pulse was his pride (I may say) for he would often reach out his hand and request you to examine it when his sufferings were at the highest. He now also suffered from capillary bronchitis of the right side, and the gluey pellets of mucus gave great trouble. Up to this time he was *two months* suffering,—*had no sleep, and the horizontal position seemed intolerable.* Remark this. For ten days and nights previous he could not lie for one moment on his bed, and he would start off his chair twenty times in as many minutes. His most distressing symptoms at this time were this and dyspnœa. His former medical

adviser had him in charge for the past two months, and in consequence of, on our first consultation, my having differed with him in opinion, he brought in a third, with whom I also differed. They gave it as their opinion that all was caused by aneurism of the ascending aorta of considerable extent, so great as, in the opinion of the gentleman so long in attendance, to involve the descending aorta. I differed, stating that he had no heart disease, and if there was aneurism present it must be small in extent, and by no means sufficient to account *to me* for all the distressing symptoms present. Mr. L. and family now requested me to take charge of him myself, which I did, having first requested, owing to the onerous position they would place me in, that Dr. ——, would be my colleague. The first thing we did was to assure his family and friends of the hopelessness of his case, and that we took him in charge with a view to mitigate his sufferings and smooth the road to death.

The attacks described were remarkable for their periodicity, always aggravated after six or seven o'clock in the evening. We commenced treatment at nine o'clock P.M., and at two o'clock A.M. he was —remark this—*lying down in bed, and slept soundly till nine o'clock next morning.* Electricity and acetate of morphia, administered freely and frequently, got rid of this, although it was stated in consultation, by the gentleman last consulted, that opium, or its preparations would prove fatal in such a case, and I must say, Mr. L. and family had a strange idea that opium never agreed with him, but in opposition even to the prejudice I gave the morphia.

Next morning, Mr. L., having first thanked God for such a rest, in the presence of his wife and sister, thanked me in an especial manner, in language that it would appear egotism to repeat. After two or three nights he never suffered from the fearful dyspnœa. But now he was attacked with fearful abdominal suffering, which appeared to be spasm of the diaphragm and flatulent colic. Abdomen very tympanitic. This we also removed, and now came on regular hysterical attacks, commencing with deep sighs and sobs, and at its height, an utter inability to retain his urine. This annoyed him much, but after a day or two we removed this also, by the judicious administration of chloroform. It had a magical effect in fifteen minim doses, every two hours, till relieved, and his suffering became positively nil compared to his former state, but now—that is three weeks before death, *the kidneys ceased to act*, and his inferior extremities became anasarcous. All this time he used to lie down in bed, and never referred to the cardiac region or lungs as the seat of suffering, in fact, his case was remarkable in this particular.

No remarkable dyspnœa more than that caused by bronchitis of right lung, and at this time, on a few occasions, there were light tints of blood on the expectorated gluey mucus. Nothing like hæmoptysis or hæmorrhage ever appeared—mark this also. It is right to say that for the dropsy, my colleague, Dr. ——, for a few days tried homœopathy. Now he would betimes become semi-unconscious, and incoherent from uræmic poisoning. Still the pulse was steady, calm, and 72 to 78, to near the close, when it became feeble, thready, and 100 to 110, when he expired as follows :—On Monday morning's visit he was just after exerting himself to get from the close stool into bed. The moment I placed my finger on the pulse I saw how near his end was. I gave him half-a-glass of brandy in punch ; he rallied, and after a little his pulse became again normal, *without intermission or irregularity.* It was now twelve. At four o'clock I again called, and *found him lying perfectly flat without a second pillow.* No particular dyspnœa, and conscious when roused. Pulse going fast. This I announced to his wife, sister, and sister-in-law, then present. During their prayers, he himself stopped them, distinctly uttered an ejaculatory prayer, gave two deep, not convulsive inspirations, and died as if going to sleep. This is as faithful a history of the termination of this interesting case as I am capable of giving, without extending aught in malice.

REMARKS.

The learned profession, for whom I have sketched this case, may be able to say whether the opinion expressed fourteen years ago was correct, or whether that ventured on by me two years before death, seems nearer the truth. There was no evidence of hydrothorax, as he did not live long enough to have the dropsy reach the cavity. On several occasions before, and within the couple of hours that preceded death, he declared "he had neither pain or ache in the region of the heart or lungs." There were no symptoms, at the close, to indicate either the presence or the rupture of the aneurismal tumour, of the large extent on the presence of which those gentlemen insisted, with whom I was rash enough to differ ; but I close by putting the following questions :—

If aneurism, to the extent stated, was present, what would be, in fact, what are the constant symptoms present ?

While such an aneurism existed, would not most of the symptoms be permanent, persistent ?

If the fearful symptoms present, when I was called in, were caused by large or small aortic aneurism, why did they, under treatment, altogether disappear?

Is fearful abdominal suffering symptomatic of aortic aneurism within the thorax ?

Are great hysteria and involuntary micturation symptoms?

Is it (as Mr. L. died) persons afflicted with thoracic aneurism usually die, lying calm and flat on their beds ?

In my experience, certainly not. In such a case as my learned friends and I happened to differ on, and they described, I would expect it short, sudden, and decisive, or lingering and distressing beyond measure to witness. Mr. L.'s was surely a unique case, and one that I am satisfied was altogether caused by some lesion of the great sympathetic system ; but the immediate cause of death undoubtedly was renal dropsy. There was, I regret, no autopsy.

In fine, if there are any learned physicians who met with cases of thoracic aortic aneurism of fourteen years' standing, and the subjects suffering therefrom having throughout the whole period of its existence a steady, calm, full, normal, non-intermitting radial and caroted pulsation of 72 to 80, I must have some doubt of my opinion. But, up to now, I have considered the existence of such a circulation as proof against the presence of thoracic aneurism, almost of any size.

I have been assured by an old friend of Mr. L.'s that, three years after the opinion given fourteen years ago, he and Mr. L. presented themselves to Dr. ——, and when Mr. L. was then examined by him, his expression was, after Mr. L. had described how he then lived, "My dear Mr. L., you are a puzzle to me. I thought you were dead long since. All I can say is, I am delighted to see you looking so well. Go home, and live and enjoy yourself as you have described."

Such were the words of the very physician who three years before directed him to divide his journey to Cork. The gentleman referred to will recognise the case at once, and can test the truth of some of the statements made by me in detailing the history of the last moments of as worthy a fellow as Cork ever contained, and universally regretted. He died at twenty minutes to five o'clock P.M. on Monday, the 14th May, 1866.

REPORT ON WINE : ITS USES AND ADULTERATIONS.

[SPECIALLY PREPARED FOR THE MEDICAL PRESS AND CIRCULAR.]

No. I.

It has long been our intention to issue a Report founded upon a series of practical and experimental investigations, into the properties and uses of wine. This intention has been hitherto frustrated by various circumstances that have imposed delay. Some of those who have undertaken a portion of the investigation have not yet completed their work. Others are waiting to put their conclusions

into definite shape. Some have only as yet succeeded in accumulating material. This indeed with each of the Reporters grows apace, so that the difficulty of arrangement continually increases. Under these circumstances, taking our readers into our confidence, we propose to commence at once, instead of waiting till the mere artificial arrangements of a subject which bids fair never to be exhausted shall be completed. By disposing of some points in occasional papers, as we find them ready, we may perhaps really facilitate the object we have in view, and if by so doing we produce a Report, the parts of which may seem less harmonious than had it been revised as a whole, the defect will be less perceptible from its publication in a periodical; moreover it will enable us to be free from one part while arranging another, besides which it will afford, what on this subject has never yet been offered in any journal, opportunity for free discussion of the several points as they arise. We are aware of the many diverse opinions on the subject, and we desire that all should be fairly heard. Although, therefore, we do not intend to restrain those to whom we have entrusted the Report, either individually or collectively, in the expression of their views, our columns will be open to such replies as may be just and temperate.

The Report is intended to take a wide scope. Wine, in every form is the subject, and whatever relates to it will not be out of place. The chief question will of course always be the value of the various sorts of wines as beverages and as medicines. Incidentally this may include many other things, of which the most important are perhaps the mode of preparation, the countries producing, the comparative strength in alcohol, the relative richness in various constituents, the adulterations practised, and their detection, and the indications for prescribing or forbidding them. These and other interesting considerations will receive attention as we proceed, nor must we omit to say that the literature of the subject will not be entirely omitted, as we shall be obliged from time to time to refer to standard books, and not unfrequently to writings that have no claim to that appellation. We have spoken of wine as a beverage as well as a medicine. We do not feel called upon to defend the phrase—nor, for that matter, are we concerned on this occasion to argue for or against the custom of drinking it. From the earliest times the fruit of the vine has been resorted to in health as well as in sickness. The poetry and the history of mankind have given it a place in our life, from which it is not easy to imagine it removed. At the banquet of pleasure, at the scanty table of woe, it asserts its pre-eminence. Over learned and ignorant, rich and poor, young and old, it exercises its powerful sway. There is no event in human life with which it has not been intimately associated. So widespread is its use, that the German anacreontic lately circulated by our northern contemporary, in spite of its eminently national characteristics, reads almost like a legend universal enough to be founded on fact.[1]

No doubt there are persons to whom the broad admission we have made will be very shocking. They look upon the weakest wine as a most potent agent for mischief, and would persuade us that the grape was something more dangerous to us than the forbidden fruit was to our first parents. These persons are but a small minority, though confessedly an active one. We lately received, in common, no doubt, with many of our contemporaries, a lithographed letter, headed with the portentious question—"Is Alcohol food, physic, or poison?" The writer, Mr. Henry Pitman, seems fully convinced that it is a poison, and we do not for one moment doubt his sincerity, though we confess to some misgivings as to his logic.

Had he not made up his mind to the answer when he put the question he might have taken into consideration the possibility of some one answering without hesitation—"All three." This, however, he does not appear to see, for, with a simplicity which is quite charming from the unconscious manner in which he wields the *petitio principii*, he says:—"It is encouraging to find that the highest medical and chemical authorities now endorse the conclusions which have been clear to temperance men for nearly forty years, namely, that alcohol is neither food, force, nor physic, but a poison, like opium, and a substance abhorrent to the human economy; that it does not in the slightest degree nourish the body, or even prevent the waste of tissue, but that it arrests digestion, destroys the appetite, lessens muscular force and vital heat, excites the lower passions, predisposes the drinker to disease, and retards his recovery."

It is true that a number of quotations follow, and amongst them we find, very naturally, the sensation paragraphs of some of our contemporaries that have lately indulged their readers with descriptions of the "alarming" increase of "tippling by both sexes, young and old, in the middle and upper classes," that these writers have discovered and one of whom asserts that "everything in modern custom tends that way!"

But a truce to this digression. We need not enter into this question—much less express any opinions upon it in this place. Wine, as we have said, is in almost universal use. That is our justification for entering upon this inquiry, out of which, as it proceeds, we hope to furnish our readers with much useful information, and, perhaps, some amusement.

After so long an introduction, it would scarcely seem fitting to close this article without a more practical exemplification of our plan. We, therefore, leave generals for particulars, and pass at once to a sort of wine long held in favour in this country, though now, perhaps, losing ground with us. We allude to

PORT.

The mere mention of this, we are well aware, will recall at once the most opposite opinions. The enemies of port have lately grown very numerous, and its friends have lost their temper, or, instead of arguments in its favour, have only urged the songs it has inspired, or the myths to which it has lent countenance. It will, therefore, perhaps, be as well to take it first in order, and, considering the defection of its old friends to consider *in limine* the last utterance in its favour. This is to be found in a small blue book of "Commercial Reports, received at the Foreign Office from Her Majesty's Consuls," and presented to both Houses of Parliament last April. In this blue book will be found an elaborate defence of port wine, by Mr. Consul Crawford, who represents Her Majesty at Oporto. Mr. Crawford has collected and arranged in small compass a good deal of information, and his facts will everywhere be received with respect. The most striking part of his production is, however, his strong opinion, we had almost said prejudice, as to the superiority of port over other wines, and his advocacy of a system which has long been denounced as simple adulteration. Mr. Crawford considers it necessary to strengthen port wine with brandy, and he does not condemn the addition of even less tolerable articles. In an argument that was quite unnecessary, because the fact he wishes to prove is very generally admitted, and because also it is little to the point, he shows that *French* wines are very commonly strengthened by the addition of brandy. This, we need scarcely say, is no reply to those who assert

1 It tells that an angel, visiting the earth some time after] the subsidence of the Deluge, discovered Father Noah sitting at noon in the shadow of a fig-tree, looking very disconsolate. The angel inquired the cause of his grief. Noah replied that the noontime heats were oppressive, and that he was thirsty, and had nothing to drink. "Nothing to drink," said the angel. "Look around! Do not the rains fall, and the rivers run, and is there not a spring of water bubbling up at thy cottage door!" "It is atrue," answered Noah, smiting his breast, "that there is abundance of water in which thy servant can bathe; but, alas, when I think of the multitudes of strong men, of beautiful women, and of innocent children, and the countless hosts of animals that were drowned in the Flood, the idea of water becomes distasteful, and my lips refuse to drink." "There is reason in what thou sayest," replied the angel, and, spreading his snow-white wings, he flew up to heaven swift as a lightning-flash, and while the eyes of Noah were still dazzled by the brightness of his presence, returned with some stocks of the vine, which he taught the grateful patriarch how to plant and tend, and when the fruit was ripe how to press into wine. This, says the song, was the source of all the beneficent and benevolent drinks which the world owes to the grape.—*Blackwood's Magazine* for August.

that brandy injures *Portuguese* wine. Two wrongs can never make a right, and to prove that a practice is adopted by French wine growers, does not show that the practice is commendable, much less that it is right for others to imitate it. The admixture of spirit with port wine is not only countenanced, but advocated as necessary, by Mr. Crawford. He even makes the astounding assertion that the "clarety wines of Portugal require less brandy for their preservation than the richer wines of the Upper Douro," and he evidently thinks the more sugar a wine contains, the more it stands in need of super-added alcohol. We should almost rather adopt the contrary hypothesis. The clarety wines of which Mr. Crawford is speaking, are those that will not bear transportation, and must consequently "be drunk on the premises" where they are made, and they bear somewhat the same relation to the rich ports that "small beer" does to Bass's or Allsopp's best brew. In the vineyards of the continent we have drunk many varieties of this light wine, and we may remark that our experience, as might have been anticipated from theory, by no means accords with that of Her Majesty's Consul at Oporto. That weak sweet wines will keep a certain time, is familiar enough to the few British matrons who still pride themselves on their own "home-made cowslip," or on the excellence of their family recipes for raisin or orange wines. That sugar is, in some cases, an actual preservative, is not to be denied. Perhaps the light wines of which Mr. Crawford speaks, are scarcely accurately described by the epithet *clarety*. If so, we can only confess that our experience has given us different impressions than he has gathered from his. On the whole, without any prejudice on the matter, we cannot but feel he has not made out his case. We must return to the subject again —and this last defence of port by no means contains all that is to be said in its favour, yet it is in itself so important, that as the newest expression of this view, we have given it a foremost place, and lest we should be thought to have misunderstood it, we here add Mr. Crawford's own words. He says at pp. 109-110 :—

"It has been repeatedly asserted by the wine merchants here, British and Portuguese, that port wines contain so much more of those particles which go to constitute vinosity, that it requires more spirit to preserve them than lighter wines. The more thorough ripening of the grapes, caused partly by the admirable aspects of the vineyards in which they are grown; partly by the greater heat of the summer of Portugal; partly by the more complete pruning of the vines, and partly by the later gathering of the vintage, is such, that when placed in the press, each grape is (unlike the grapes used in French wine-making) one mass of saccharine matter. The juice of the grapes in this state forms a wine which, it is said, requires brandy in exact proportion to the fermentable and non-aqueous particles which it holds in suspension. It is certainly the case that the clarety wines of Portugal require less brandy for their preservation than the richer wines of the upper Douro. These wines are made for consumption within the twelvemonth. If required to be kept longer, they have added to them a certain percentage of spirit, while the Douro wines, even those meant for consumption in the country, require nearly twice that percentage.

"That the amount used is the true necessary minimum might easily be argued from the fact that the Portuguese prefer light port wines; and that the cost of brandy being ordinarily four times that of young wine, the obvious interest of the native merchant would induce him to employ the least possible quantity of the more costly liquid.

"The admixture of spirit with port wine is, at present, probably no more than is absolutely necessary. For many years past the demand in England has been for a port wine dryer in quality and lighter in colour; and the shippers here, to meet this demand, as well as to save themselves the expensive use of spirit, now more than ever endeavour to reduce their additions of brandy to a minimum. This reduction has, no doubt, been facilitated by the far more careful preparation of wine now adopted in the district of its production. There are, at present, upwards of 100,000 pipes of wine in stock in this city; and, after a series of very careful inquiries, my opinion is, that in the case of these stocks, 39 per cent. is about the average proportion of proof spirit to wine. Some few wines, mostly new, may contain as little as 36, and again a few richer ones 41, or even 42 and 43 degrees. It must be remembered that about 1 per cent. is added on shipment.

"A gentleman from Lisbon is at present employed in this city in investigating, on behalf of the Portuguese Government, the strength of the wine now held in stock. Although his report has not yet been published, it is well known here that his experiments show the average strength to be 40 per cent., or 1 degree higher than I have given it.

"Port wine is less apt than other wine, even, perhaps, than sherry, to deteriorate in the hands of the foreign purchaser; but this has occasionally happened, to the great loss of the shipper, who virtually guarantees what he exports against degeneration."

Hospital Report.

ST. BARTHOLOMEW'S HOSPITAL.

Cases under the care of Mr. HOLMES COOTE.

FRACTURE OF TIBIA AND FIBULA, SUCCEEDED BY TYMPANITIS.

GEORGE K., 32, upholsterer, a man of intemperate habits, was thrown in a scuffle by one of his companions, June 25. The right foot turned under him, and he fractured the tibia and fibula near the ankle-joint. Admitted about 11 A.M. on the same day. The bones were put into proper apposition, and splints were applied. He was ordered full diet, and a pint of porter daily, and seemed for the next two days tolerably comfortable.

On the night of the 27th, he became restless and excited.

On the 28th—One-third gr. of acetate of morphia was injected under the skin, and forty minims of tincture of opium were administered.

On the 29th, no improvement being recognised, he was ordered one minim of croton oil. No action of the bowels ensued, but he became quieter till evening, when he was more restless, and again had forty minims of tincture of opium.

During the course of the 30th he had three injections, which were followed by copious evacuations. He was very restless during the night.

On the 1st of July he was very low; pulse very feeble; voice low; extremities cold. He was also very sick, and tympanitis supervened. He had injections of essence of beef, and brandy, &c.

On the 2nd he was better; sickness less; extremities warm; less tympanitis.

From this date he gradually improved.

NELATON'S GAS CAUTERY.

Our attention has been directed to a case in St. Bartholomew's Hospital, in which Mr. Coote has employed with success the gas cautery introduced by M. Nélaton. It was a case of cancer of the face in a sailor about 50 years old. He was admitted to the hospital under the care of Mr. Holmes Coote, at the end of May, with a large open sore involving both right eye-lids and a considerable part of the right cheek. The sore varied in depth, and was covered with a thin, yellow discharge; and at times the patient suffered from severe lancinating pains. Nitric acid had previously failed, as did also opium lotion and Vienna paste, both of which were prescribed in the hospital.

Mr. Coote determined to resort to the gas cautery, which was accordingly applied, and as the effect seemed beneficial, was repeated on two or three subsequent occasions. Under this treatment the discharge lessened very much, and the lancinating pains became less distressing. More important still, a very great contraction took place, so that, after a time, the sore was less than half the size it had been at the commencement of the treatment by cautery. It would appear from this that the gas cautery is likely to be of great

service in those cancerous ulcerations of the skin which so frequently attack the face. Where the disease is very limited, or in positions where the flame cannot be used, the heated platinum points recommended by Mr. Bruce are very useful; but Mr. Coote stated that, where it is practicable to employ it, he prefers the flame. He considers that not only is its action very rapid in destroying the cancerous tissue, but that it actually arrests the progress of the ulceration. In the case above mentioned both the flame and the heated platinum points were used, the latter in consequence of its being impossible to direct the flame upon the whole surface of the sore, from its position rendering it impracticable to protect the eye. The first effect of the flame is to char the surface, which afterwards remains dry, and very rapidly contracts; and this contraction may, perhaps, be looked upon as the first effort towards an attempt at repairing the injury. Finally, as the idea of applying actual flame to the body is always suggestive of intense agony, we are desirous of mentioning the impression produced on this patient, that the gas cautery is a less cruel application than the Vienna paste, since the pain produced by the latter continues for a long while—a fact with which all Surgeons who use it are too familiar; while, with the gas cautery, the pain does not last long after the flame is withdrawn. Should this be found to be usually the case, we cannot but think that it will contribute greatly to the general adoption of this plan of treatment. The impression produced by this case on those who witnessed its effect is evidently most favourable, and no doubt we shall soon have the opportunity of recording further instances of its employment. We believe Mr. Coote himself is likely to give it a more extended trial, and we have to thank him not only for his courtesy in pointing out to us this and other interesting cases, but for the candour with which he spoke of his own impressions of the cases, and thus, as it were, placed at our disposal his own vast surgical experience.

Foreign Medical Literature.

CASE OF
OSTEOMYELITIS SPONTANEA DIFFUSA.

By P. THILESEN.

TRANSLATED FROM THE NORSK MAGAZIN FOR LÆGEVIDENSKABEN, XXI. BIND, I. HEFTE, CHRISTIANIA 1867, P. 3.

By WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY, AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

(Continued from page 136.)

As the reader cannot from this one case get any general or comprehensive view of this hitherto little-known disease, I shall, in conclusion, add some extracts from the most important parts of the late Hermann Demme's remarkable work upon "Osteomyelitis spontanea diffusa," (1) its nature, course, and treatment, with some remarks derived from Professor Richard Volkmann's essay on the same disease.(2) Even J. L. Petit (18th century) had rather a correct idea of inflammation of the medulla of bone. He, like all subsequent writers until Chassaignac, knew it, however, only in connexion with, and as a result of, solution of continuity of the bone. Chassaignac, on the contrary, first in his *Memoire sur l'Osteomyelite* (1853), distinguished and anatomically and clinically described a spontaneous or essential osteomyelitis, which, as the name indicates, had nothing to do with solutions of continuity of the bones. From 1858-9, the subject of the nature and symptoms of this disease was treated by Klos and Gosselin, and subsequently, 1860-1, by Frank and Fischer, all of whom put forward the separation of the epiphyses of the bone as one of the constant symptoms in this disease, identifying, as it were, the inflammatory separation of the epiphyses with osteomyelitis. This is not correct. Separation of the epiphyses may indeed take place, but it may also be wanting, and is, moreover, met with in other very different affections of the bones, as in periostitis, acute articular inflammations, defined inflammations of the boundary of the epiphyses (*ostitis epiphysaria circumscripta*). As much relating to this affection still remained obscure and uncertain, both in this and in many other respects, which is sufficiently evident from the discussion elicited by Roux, in 1860, in the French Academy, Hermann Demme, at the time Lecturer in Surgery in the University of Bern, where his father is Professor of Surgery—determined to investigate this affection more fully, for which Bern offers special facilities, as the disease is there rather frequently met with (as is the case also in the neighbourhood of Marburg and Halle, while about Berlin it is said to occur very rarely—*Richard Volkmann.*) He did not arrive at the same results as Chassaignac and Klos. He found that we must distinguish between two forms—one circumscribed, essentially local, and generally spontaneous, or after treatment terminating in recovery; and a diffuse form, which is a disease of a very serious nature (*Typhus des Membres*—Chassaignac), constantly threatening the existence of the bone, in general, in the most critical mode, bringing the whole system into a state of suffering, and often, by the development of pyæmic and septicæmic conditions, menacing life itself. Richard Volkmann, who in other respects, in all essential points, shares Demme's views as to this disease, calls attention to the fact (*loc. cit.*) that in his district (Halle) a subacute form of the same commonly occurs, which is by no means so dangerous as the form described by Demme.

In the first stage, which we do not very often happen to see, the bony medulla is, through a greater or less extent, sometimes over the whole both diaphysis and epiphysis, strongly hyperæmic, sometimes bluish red, swollen, and infiltrated with serum. With active nucleus and cell-formation from the connective tissue cells of the medulla, the medullary tissue is changed to granulation tissue (fœtal medullary tissue). Gradually this comes to an abundant suppuration. The pus does not collect in large cavities, but becomes infiltrated more uniformly through the whole tissues. The osseous framework meanwhile perishes, sometimes to such an extent that only the solid cortical substance remains, of an occasionally comparatively slight thickness, while the interior of the whole bone forms a single canal filled with infiltrated medullary tissue. Sometimes we meet (as Chassaignac and Klos especially have shown) with total necrosis (through the whole thickness). The periostitis always accompanying it has, in general, the same character and extent as the existing osteomyelitis. It is, therefore, in general purulent. The pus formed from the periosteum is found either within the latter, in its tissue, or between it and the bone. The extra-periosteal suppuration, which is always connected with an infra-fascial phlegmon, is most frequently inter-muscular and subcutaneous. In the interstitial periostitis the membrane is infiltrated through its whole mass, small abscesses here and there in the same, often ulcerate larger portions. Sometimes productions of connective tissue from the attacked periosteum, which penetrate into the bone, destroying the latter, are met half way by similar productions of connective tissue proceeding from the medulla. In this mode perforation of the bone is frequently brought about. If the pus collects between the bone and the periosteum, the former is often denuded through a great extent, and dies throughout a greater or less circumference. If rupture of the membrane and evacuation of pus in the surrounding parts occur early, the periosteum may again become connected to the bone, and necrosis be avoided. Chassaignac was the first to direct attention to the articular affection characteristic of the disease. The connection is so constant, that Demme failed to find it in only one of the seventeen cases observed and described by him. In this Volkmann

1 Langenbeck's Archiv for Chirurgi.
2 Billroth's og Pithas Chirurgi.

also agrees. Neither of them, on the contrary, seems to agree with Chassaignac in this, that the centrally situated joint is always the affected one. So it was too in the present case, but it occurred only once in those described by Demme. Even where the osteomyelitis had its principal seat in the middle of the diaphysis, or even above the middle, there was no exception in this respect. Chassaignac always assumed that the articular affection was of the same destructive character as the process in the medullary canal; thus, according to him, it proceeded directly from the same, partly by propagation to the joint of the existing ulcerative and destructive process of fusion, partly by perforation of the articular cartilage, and of that of the epiphysis by pus, and the influx of this sanious and bad matter into the cavity of the joint. In this view of the relation between osteomyelitis and the articular affection, Dr. Paul agrees with Chassaignac. Demme considers this connection between these two affections to hold good for only extremely few cases. In the majority of instances, the articular affection is of very slight importance. Frequently it consists only in an acute œdema, a dropsy of the joint, a result of the increased pressure in the capillaries and veins of the synovial membrane, caused by existing osteo, and periosteophlebothrombosis. All is then in general at last resorbed. Often enough the affection is an articular empyema, a superficial production of pus from the synovial membrane, the same as Volkmann in Langenbeck's *Archiv*, B. 1, Heft 2, describes under the name of catarrhal articular suppuration, only a further development of the previous form, and, like it in general, ending in complete recovery. He acknowledges, however, that the articular affection may also be of a very serious nature. Thus a deeper, destructive articular inflammation may be developed embolically, most frequently suddenly, and with peculiar general symptoms; this, however, is not to be considered as any direct propagation of the osteo-myelitic process. The suppuration is then in general of a bad type, leading to great and deep destruction of the cartilage, and the most favourable termination on the whole, is anchylosis of the joint. Finally, we have the last and rarest kind of articular affection, described by Chassaignac as the only one, that, namely, propagated directly from the medullary canal (propagation of the process, or perforation of the cartilage, see above). Volkmann, as I have said, quite agrees with Demme in this view of the several kinds, degrees of importance, and modes of origin of these articular affections. As to the separation of the epiphysis, Demme distinguishes between a loosening and bending, and a complete separation of the same. The incomplete separation is not mentioned by the earlier writers on this subject; according to Volkmann and Demme it is, however, much more frequent than the complete separation. Demme saw complete separation only in two of his seventeen cases, and in both of these, reunion of the separated parts was effected by new formation of bone. The separation is quite naturally produced by an extension of the osteo-myelitic process to the membrana pulposa of the boundary of the epiphysis. As ossification of the epiphysis should be complete at all events before the 25th year, one would believe that separation would not be possible after that age. Demme has, however, an example of such separation in the 25th year, and Volkmann even in the 30th and 50th years. Bony or fibrous union of the separated parts often occurs subsequently, and the result is by no means unfrequently decided lengthening of the extremity.

The phlegmonous inflammations, which are always developed in the neighbouring soft parts, have been already mentioned. They may attain a considerable extent, and occasion great destruction.

Volkmann points out that osteo-myelitis may occur contemporaneously in several parts of the skeleton (*osteomyelitis spontanea multiplex*).

The disease occurs with variable frequency. In and around Bern, Halle, and Marburg, it seems to be rather common, while in other places it has never been observed. Demme connects this with the frequent occurrence of rheumatic affections in his country. In all his cases hard work and exhaustion preceded the attack. It is certain that traumatic causes, contusions and commotions of the bone, with extravasations of blood in the medulla, have been more frequently in operation than has been shown. All Demme's patients belonged to the poorer classes, and were in one way or other debilitated individuals. Their ages varied from thirteen to twenty-five years. All agree in this, that youth is especially predisposed to the disease. Chassaignac states that he never met with the affection in women. This is, however, not the rule. Volkmann says that of 23 cases, 17 occurred in women. In 73·3 per cent. the femur was the affected bone, and in 65 per cent. the left femur.

Symptoms.—In the midst of a perfect feeling of good health, the patient is suddenly attacked with a deep-seated pain of variable character, stinging, tearing or pressing, most frequently limited to a definite spot, sometimes, but more rarely diffused over a greater extent, according to the spread of the affection. The pain is increased by pressure on, and movement of the affected extremity, obliging the patient very soon to take to bed, and sometimes to avoid the slightest active or passive movement of the part, and to lie quite motionless with the extremity flexed, or in the position which relaxes the limbs most, and is therefore the most convenient. During the first few days there is, notwithstanding the violent pain, no swelling of the bone, it is often eight days before any such takes place, the swelling generally occurs between the third and eighth day. This is very characteristic, and a good diagnostic between this affection, and periostitis and phlegmon—(R. Volkmann.) After the pain has set in, but before there are as yet any objective phenomena from the bone, we have signs of general affection, intense fever, repeated rigors; at first the fever presents the character of continued fever with evening exacerbations; but it soon, sometimes in the first, but more generally not until the second week, assumes a typhoid character, with violent headache, sleeplessness, delirium, a brown and furred tongue, fœtid and copious diarrhœa and great debility. With these symptoms Chassaignac has often seen diphtheritic affections of the throat. Demme, on the contrary, has not met with this. In the middle, or at the close of the first week, the first objective signs manifest themselves, a diffuse deep-seated swelling of the extremity, through which we can also, with tolerable distinctness, feel a tumefaction of the bone and periosteum. This latter swelling sometimes terminates rather abruptly a little above the bone, where the sensibility also ceases with it. The tumour soon approaches the surface of the skin; still there is no increase of temperature or inflammatory change of colour, the colour of the skin is rather dusky, sallow, half anæmic, with sharply marked bluish veins. The tumescence of the extremity gradually increases, suppuration supervening between the muscles. Sometimes we can also, towards the close of the first week, at all events early in the second, feel fluctuation (in the present case this did not occur until the third week). Generally this is most distinctly perceptible on the outside or inside posteriorly.

At the close of the second week, sometimes not until towards the end of the third, signs of an affection of one of the neighbouring joints supervene. Dropsy of the joint, may sometimes occur still earlier, and generally suddenly. The ulcerative articular affection begins more insidiously, almost without pain; so it is from the fluctuation we first become aware of the existence of the arthropyosis. If the articular affection, which is not often the case, is the result of a perforation of the cartilage of the epiphysis, and a sudden penetration of unhealthy pus into the cavity of the joint, it is frequently preceded by violent rigors and by an increase of the existing feverish condition. Volkmann points out that the articular affection may sometimes occur early with such definite symptoms, that it attracts to itself the whole attention of the practitioner, and entirely conceals the proper osteomyelitic affection.

The course of the disease may now be very various. Thus, the *vis medicatrix* may at this stage gain the upper hand. The general affection declines, the health improves, the local symptoms become more prominent, and during a slow and often interrupted period of convalescence permanent recovery at length takes place. In a second series of cases signs of a pyæmic and septicæmic condition are more or less rapidly developed (in Chassaignac's cases with very stormy phenomena): repeated violent rigors, affections of internal organs, the lungs, liver, kidneys; abscesses here and there with profuse unhealthy suppuration. With excessive perspiration, violent diarrhœa, increasing anæmia and hectic, death at last occurs. The separation of the epiphyses in general accompanies this stage. Demme maintains that this usually does not take place before the second month, while Chassaignac and Klos consider the usual period of the separation to be (as in the present instance) from the middle of the second week.

Although the disease only rarely takes this unfortunate turn, it is nevertheless always a very serious affection, leading to recovery only after the lapse of months or years.

Treatment.—In opposition to Chassaignac, Klos, Gosselin, Paul, and many others, who recommend early division of the soft parts down to the bone with great incisions, even before fluctuation is observed, Demme lays it down as a rule that no deep and extensive division is to be performed in the acute progressive stage. Such ought not to be made until the disease has assumed a more chronic and stationary form. He recommends at first to employ only means calculated to overcome the acuteness of the process and to promote the development of this chronic state. He rejects, however, as too weakening, and partly useless, the ordinary antiphlogistic means: venesection, leeching, blistering, the application of cold, poulticing, &c., but advises painting with strong tincture of iodine every, or every second, day. He usually employs a form recommended by his father (from 60 to 65 grains of iodine in an ounce of alcohol of 96 or 98 per cent.) This he applies with a pencil to the part until the latter has assumed a bluish black colour. At the same time he evacuates, at this stage, with the trocar, all phlegmonous and periosteal accumulations of pus, and provides for the absolute rest and convenient position of the part. Opiates are given to relieve the pain, and a moderately strengthening general treatment is adopted. When the stationary period has been reached, he divides the soft parts to a sufficient depth and extent. This he does not, however, like to do with the knife, as he dreads the loss of blood, he therefore keeps to the plan proposed by his father, of employing for the purpose the actual cautery or zinc-paste. He afterwards injects the cavity of the abscess with iodine, perchloride of iron, &c.

The borings of the bone recommended in osteomyelitis by some writers he altogether rejects. The articular affection is treated according to circumstances, by contentive bandages, &c. Sometimes opening of the joint may be necessary; in separation of the epiphyses contentive bandage; finally in the chronic stage, when protracted beyond what the strength can bear, amputation may be thought of. As to treatment, Volkmann agrees with Demme, only he does not approve of the opening of the abscess necessary in the chronic stage, being so large as Demme recommends it to be. He prefers numerous smaller openings and drainage through the same.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The report of this useful and energetic society is now before us, and very encouraging it is. Its action in reference to workhouse dietaries has been so fully explained in this journal prior to the publication of the report, that we may at once pass by that subject, in order to refer to some others which are equally receiving the attention of the Association. It is a matter for sincere congratulation that in so short a time so much really useful work should have been accomplished. Perseverance in the same path will undoubtedly make the society felt as an influential power.

One question, which has also been treated in this journal during the year, relates to the mode of sending pauper lunatics to the asylums. In the great majority of cases they are taken before a police magistrate, and, in many cases of recent disease, great and permanent injury is done to the patient's prospects of recovery by the impression which is created, that an offence has been committed.

All medical authorities are agreed upon this point, and the practice has been repeatedly condemned by the Commissioners in Lunacy.

A case which occurred recently, at the Strand Workhouse, and which at the time formed the subject of an article in the Medical Press and Circular, forcibly illustrates one of the evils of the present system. A lunatic had been certified by the medical officer, and the order for his admission to the asylum signed by a justice, who attended at the workhouse for that purpose. The order, through the accidental omission of a single word, proved to be informal, and after the patient had been three weeks at Hanwell, he was sent back to the workhouse by order of the Commissioners in Lunacy. The justice who had signed the order being out of town at this time, the medical officer was reluctantly compelled to take the lunatic before a police magistrate, who pronounced him sane, and sent him back to the workhouse. A committee of three guardians was appointed to investigate the state of the man's mind, the poor fellow having told them that the medical officer had declared him insane for nefarious purposes. These *experts* (!) pronounced the man sane. Meanwhile, in consequence of a communication from the medical officer, two of the Commissioners in Lunacy, visited the man, and after a patient examination, made out their order for his admission to an asylum. Before he could be removed, he eluded the vigilance of the attendants, scrambled on to the roof of a house, and sprang, from a considerable height, into the street—escaping without injury—and then wandering about the streets for three days and nights, until he was captured by the police—not having had his clothes off all the time. The unfortunate man was subsequently taken back to Hanwell, howling the whole way. We doubt not that the Association will do much good by agitating such a case as this.

Another question which has been considered, relates to the duty of the medical officer as to giving medical certificates for pauper lunatics in the workhouse.

By the Act 8 and 9 Vict. c. 100, s. 48, the medical officer was precluded from giving certificates.

By the Act of 16 and 17 Vict. c. 97. s. 67, this prohibition was removed, and, as a rule, the medical officer is called in by the justice to his assistance.

But now it is sought to be made appear that, under the 20th Sect. of the 25 and 26 Vict. c. 111 (the Lunacy Acts Amendment Act, 1862), it is the "duty" of the medical officer to give the certificate in all cases. At any rate, the report before us states that one board of guardians has taken this view of the case, and compels its medical officer to give the certificates. In this particular instance the police magistrate calls to his aid another surgeon, who has access to the medical officer's certificate, and receives the customary fee for his services. The medical officer having appealed to the Poor-Law Board they stated their opinion that "the latter part of Section 20 of the 25 and 26 Vict. c. 111, requires the medical officer to give the certificate therein referred to, if he is called before the justice, under 16 and 17 Vict. c. 97, Sect. 67, and attends accordingly. In that case he would be entitled to reasonable remuneration, under sect. 69, of the latter Act."

This opinion was naturally deemed satisfactory by the Medical Officer, but the Board of Guardians, having taken counsel's opinion, and enjoying the privilege of a local act, refused to adopt it, and there the matter rests at present.

The Council of the Irish Medical Association have proposed to admit the members of the Metropolitan Medical Officers' Association to be "enrolled without the payment of any subscription or fee, *ad eundem* members of the Irish Medical Association," a compliment which has been very cordially accepted.

Should the changes in the system of medical relief, &c., about to be inaugurated in the metropolis, turn out as well as expected, the benefits conferred by Mr. Hardy's Act will doubtless be extended to all parts of the kingdom. To enable provincial brethren to co-operate in the work of the Association, a third order of members, called associates, has been instituted

—all poor-law medical officers resident without the metropolitan district to be admissible on payment of a small annual subscription.

A year ago the Association commenced its career with twenty-nine members, all of them being Metropolitan Poor-law Medical Officers. It now numbers upwards of fifty members, and has received assurances of sympathy and support from others who have not felt that it would be *safe*, under existing circumstances, openly to join its ranks.

There have also been elected a very large number of honorary members, many of whom have taken a warm interest in the proceedings of the Association, and in all questions affecting the welfare of the sick poor.

The expenditure of the year has been large, but we are glad to observe that the treasurer still has a balance in hand, although a small one.

The report expresses a deep gratitude to the medical and general press for the publicity granted to the proceedings of the Association, and for the generous support accorded to its views and objects. We may accept the thanks proffered so far as we are concerned, and take the opportunity of saying we shall ever be ready to aid every movement calculated to improve the status of the profession, and to promote the welfare of the sick poor. We could, therefore, scarcely do less than wish this Association a hearty God speed. We now congratulate them on their success.

At the annual meeting held at the Freemason's Tavern, on the 30th July, and which was largely attended, both by old and new members, the President (Dr. Rogers) in the chair, the following resolutions were passed :—

1. That the report of the council be received and adopted, and that the recommendations of the council be carrried out, viz. :—That the rules as revised and now read be the rules of the Association ; that members be admitted in future without payment of entrance fee ; that a third order of members be created to be called Associates, such associates being Poor-law Medical Officers residing without the metropolitan district, and that the annual subscription of an associate be five shillings.

2. That the Association having considered the present practice of taking pauper lunatics before a police magistrate, is of opinion that it is fraught with evil ; often gives rise to painful scenes in court ; and, in the case of recent mental disease, is calculated to prejudice the patient's prospects of recovery, by creating an impression that an offence has been committed.

The Association recognizing, with satisfaction the fact that the Commissioners in Lunacy object to the practice in question, requests the council to use their best endeavours to obtain an alteration in it, so that every lunatic may, if possible, be visited by a justice or clergyman at the workhouse.

3. That the council be requested to take steps to ascertain what is the duty of the medical officer of a workhouse with respect to giving certificates of insanity (Schedule (F) No. 3 to 16 and 17 Vict. c. 97) for pauper lunatics, having special reference to Section 67 of that Act, and Sec. 20 of the 25 and 26 Vic. c. 111, and to report upon the subject at the next general meeting of the Association.

4. That the thanks of the Association be presented to the officers and council for their services during the past year ; and to the President for his conduct in the chair at the present meeting.

Review.

MENTAL PATHOLOGY AND THERAPEUTICS. By W. GRIESINGER, M.D. Translated from the German by C. LOCKHART ROBERTSON, M.D., and JAMES RUTHERFORD, M.D. The New Sydenham Society. London, 1867. Pp. 530.

THE New Sydenham Society deserves well of the profession. It has done much to improve our medical literature, by laying open to British medical practitioners the newest and best works of their continental brethren. By thus imparting to us the fruits of the labours of medical writers in other countries, this excellent society has effectually assisted to dispel unworthy prejudices and old jealousies, making us feel that whatever country they may inhabit, all true physicians are in reality fellow workers in the sacred cause of humanity and of science. The work now before us is not unworthy of a place in this collection, and it may be read with advantage by every member of the Sydenham Society interested in the study of medical psychology.

Mental disease is becoming every day a subject of greater interest to the medical practitioner. It would seem as though the tendency of the over mental exertion, consequent on the advance of civilization, which is characteristic of the present day, and the influence of which extends into every rank and condition of life, is to produce mental disease. At any rate, be the cause what it may, this much is certain, that insanity is increasing, in proportion to the population, every succeeding year ; and, hence, it becomes a matter of absolute necessity that every medical practitioner should be as conversant with the causes, the symptoms, and the treatment of insanity, as he is with all other diseases. We have seen no work which seems more likely to be the future text-book of mental pathology and therapeutics, than this of Dr. Griesinger's. Into the philosophical and metaphysical subjects, discussed by Dr. Griesinger, we shall not attempt to follow him, as his views and ours do not coincide on several important points, and as our space would not allow us to argue these topics in this place. Moreover, Dr. Griesinger's treatise is less readable, and, perhaps, less suited for the requirements of the ordinary practitioner, who may be called, in the course of his practice, to test or to treat a case of insanity, than the well-known works of Richard, Conolly, or Forbes Winslow, on the same subject. But as a comprehensive and scientific treatise on the diseases of the mind, this volume appears to us to occupy a very high rank indeed. It is divided into five books. In the first, Dr. Griesinger discusses the minute anatomy of the brain and its functions, in health and in disease. The next book treats of the causes of insanity, and is succeeded by an elaborate classification of the forms of mental disease. In the fourth part the pathology of the mind is considered ; and finally, in the fifth part, Dr. Griesinger affords us a well digested summary of the whole work in the chapters on the prognosis and therapeutics of the various diseases of the mind. Dr. Griesinger is entirely opposed to the employment of corporeal restraints in the treatment of the insane, and as this remnant of the barbarous treatment of persons of unsound mind, which, until a comparatively recent period, was universally practised, unfortunately still prevails in some continental lunatic asylums, it is satisfactory to find that Dr. Griesinger quotes with approbation the late Dr. Conolly's well-known aphorism, that in the treatment of insanity "restraint is synonymous with neglect." Dr. Griesinger's opinion of the value of the various specific plans of treatment recommended by some writers on insanity, is the same as that entertained by the most competent authorities in this country. He says :—"In mental, as in many other diseases, the simple expective and dietetic treatment—which is so far removed from meriting the absurd reproach of the do-nothing—is in many cases, though not in all, far in advance of the employment of very active and often changed remedies To how small an extent their recovery is, properly speaking, due to direct medicinal interference, is seen from the similarity of statistics furnished by various asylums where the methods of treatment are essentially different. It has now been long admitted that mental diseases are not to be cured by any special method of treatment ; a conclusion based on the fact that, in the two sections of the bicêtre where these directly opposite methods were followed, the results as to recovery were exactly similar."

The style of this book is far from pleasing, and affords a good many examples of those long sentences, polysyllabic-compound words, and vague phrases, in which most German writers love to conceal their ideas. Still, despite these imperfections, the work has much merit, and those who take the trouble to open the hard German shell in which the kernel of Dr. Griesinger's ideas is sometimes hidden, will, we think, be amply rewarded by the rich store of original information, evidently the result of long experience, and well exercised powers of observation, contained in the volume now before us. We cannot refrain from regretting that the eminent physicians who have so ably and so accurately performed the laborious task of translating the work, have confined themselves so closely to rendering the original text, and that they did not give us in the form of notes their own opinions on some of the more difficult questions of mental science treated by Dr. Griesinger. We trust that in the next edition. Drs. Robertson and Rutherford will do this. As it is, they have rendered an important service to English students of psychological literature, by placing within their reach the most recent German text-book of mental diseases.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 28, 1867.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ITS LICENCE.

THE London College of Physicians has at length decided upon the educational programme for its future Licentiates. The decision, we believe, was not arrived at without much discussion, and not even then with unanimity.

"Drei Jahr' ist eine kurze Zeit,
Und Gott! das Feld ist gar zu weit."

The step promises well for College coffers, and will, we trust, prove as creditable to College honour. We must not, however, hazard an expression of our doubts or fears upon the matter, lest we should be as fiercely reproved as was that ill-boding prophet by the Grecian King, during a certain memorable siege.

But the College must take heed lest a strife as long and fierce should one day rage within and around its walls.

The candidates for the licence, allured by the easy terms held out, will eventually become a very numerous body, and naturally seek a more definite *locus standi* in the College. The outer world will regard them to all intents and purposes as Physicians; indeed, the "Medical Directory" already invites them at their option to add "*Phys.*" to their titles. They may (and, perhaps, not unreasonably), consider themselves as equals of the Members who had the ill-luck to be admitted during the year of grace. But, we return to this point anon. The Fellows, anyhow, will have no just ground for complaint, nor will the matter concern them much at present. They are denizens of a higher atmosphere. Some among them would seem to have been "born to greatness," and simply take possession; others (and many they be) "achieve greatness," while not a few "have greatness thrust upon them," without the cost of midnight oil, and risks on wearied brains:—

"Ein Titel muss sie erst vertraulich machen,
Dass eure Kunst viel Künste übersteigt;
Zum Wilkomm tappt ihr dann nach allen Siebensachen,
Um die ein andrer viele Jahre streicht."

But of that middle class yclept the "Members," what is to be their destiny? The old proverb of the greatest safety being "*in medio*," clearly does not apply to these. The line which separates them from the Fellows seems distinct enough, while that which separates them from the Licentiates strongly reminds us of Euclid's definition. The formal bye-law, "*Members of the College, present and future, shall be alone eligible to the Fellowship*," reads like pure mockery to the multitude. The Fellowship doors, so closely barred in front as only to suffer with difficulty an occasional ingress, and the Licentiates closely treading on their heels, the Members must undergo, if not a *Darwinian* struggle for existence, one at least for College rank, and, unless they bestir themselves, must eventually fuse into the intrusive race. As yet, they are a powerful body, with a very powerful voice, if they will but speak loud enough. There must be no apathy—no procrastination—if the majority would avoid being hopelessly stranded on the shores of mediocrity. They ought to urge upon the College the necessity—the justice—of placing the Fellowship upon a broad, constitutional basis, to the exclusion of all improper influence, and the College would gain infinitely in strength by granting the request.

MONOMANIA AND TESTAMENTARY INCAPACITY.

THE judgment of Sir James Wilde setting aside the will of Mrs. Thwaytes, is likely, as we have already hinted, to exercise considerable influence as a precedent. We are anxious, therefore, before public interest in the case shall have altogether subsided, to consider some of the special points to which we have alluded. Foremost of these is the doctrine, so absolutely laid down, that monomania of any kind is sufficient to invalidate a will. We are aware that the same decision has been arrived at on other occasions, but even the case of Waring *v.* Waring, cited by the learned judge, and hitherto, perhaps, the most conclusive on the point, will probably henceforth yield in importance, as a precedent, to the more recent judgment under consideration.

Nothing can be more decisive than the manner in which Sir James Wilde lays down the law that

"A person who is the subject of monomania, however apparently sensible or prudent on all subjects and occasions other than those which are the special subject of his apparent infirmity, is not in law capable of making a will. This has been clearly decided in the several cases quoted at the bar, of which it is only necessary to name that of 'Waring *v.* Waring.' It is needless to travel over the paths by which this conclusion has been reached. It is properly the starting point in such an inquiry as the present. I conceive the decided cases to have established this proposition, that, if disease be once shown to exist in the mind of the testator, it matters not that the disease be discoverable only on a certain subject, or that on all other subjects the action of the mind is apparently sound and the conduct even prudent, the testator must be pronounced incapable. Further, that the same result follows, though the particular subjects upon which the disease is manifested have no

connexion whatever with the testamentary disposition before the court."

Now, we have no intention of attempting to controvert so authoritative an exposition of the law. Nevertheless, we deem ourselves not only justified in remarking, but called upon to notice the fact, that this judgment does not altogether harmonize with numerous precedents, nor is it in accordance with principles that have been laid down by distinguished authorities, while it is altogether at variance with the doctrines of the courts in criminal cases.

It has usually been considered that a person who fully understands the nature and consequences of the testamentary act, is of disposing mind. So reluctant have the courts been to interfere with the disposition of property on the allegation of incapacity, that it would be easy to enumerate many instances in which wills have been maintained, although the testators conduct could not *on all points* be considered sane.

The mental condition of Mrs. Thwaytes has nothing to do with the abstract proposition to which we are referring. It may be very fairly argued, that she was no monomaniac at all, but was deranged on many subjects. Such a hopelessly diseased intellect as the evidence indicated hers to have been for the last 30 years, differs wonderfully from the state we are accustomed to call monomania. No will could be expected to stand, which could be shown to have been in any degree influenced by a delusion, but that there are hundreds of monomanics moving in society, who manage all their affairs with prudence, is incontestable. Their delusions exercise no influence whatever upon their conduct, and in case of an attempt to deprive them of their civil rights, a commission would pronounce them capable of managing their affairs. Are they then to be all pronounced incapable of disposing, by will, of property they may alienate while living, as the strict terms of this judgment would seem to imply? If so, we are disposed to think that a good deal of injustice may be inflicted. Moreover, a wide door may thus be opened for a species of litigation which needs no encouragement. Discontented relations may be induced to set up opposition to wills that do not answer their expectations, and to magnify the testator's eccentricities into monomania. If while "*on all other subjects the mind is sound, and the conduct even prudent,*" one single, it may be unimportant, delusion is to render a testator incapable, nothing but much more rigid definitions of the various kinds of insanity, than have yet been agreed upon, will render valid many wills that heretofore would have been thought incontestable. The distinction between eccentricity and insanity—never an easy one—must be made more precise. The will of a man who directed his executors to have some of his bowels made into fiddlestrings, has been pronounced valid by our courts; the testator had added an explanation to his direction, to the effect that it was as a protest against the absurdities of the customs of society in reference to the bodies of the dead. It would, no doubt, be considered by many that such a mode of protesting was evidence of a monomania on the subject. The will of a suicide who, in a fit of insanity, killed himself three days after making it, has been also held valid, chiefly on the ground that no evidence of any delusion actually affecting the document was forthcoming. It is a wide-spread notion that to annul so important an act as a will, the delusion should be shown to exercise some influence over it. The duty of experts, in a commission of enquiry, has always been considered to ascertain, not merely whether delusions exist, but whether, if they do, they are such as lead to danger to persons or property. If monomania is to be sufficient to set aside a man's will after his death, it must surely be held to incapacitate him from the management of his property during his life, and this brings us face to face with the inquiry—whether the majority of men would be willing to expose themselves to such a risk? In a world in which half the inhabitants are ready to call the other half mad, are we to tremble lest every little foible, every whimsical eccentricity should deprive us of our civil rights? Are we to give up all differences of opinion and sink to one dead level lest the exercise of our mental powers should lead us to some conclusion not in accordance with the experience of others, and which might therefore subject us to interdiction while alive, or destroy our testamentary disposition after death?

We must not leave out of account, in relation to the justice of the law we are discussing, that it is diametrically opposed to the maxims of our criminal law. A monomaniac is guilty of murder should he commit homicide, unless the act originated in or was connected with his delusion. It will seem to most people manifestly unjust that such a difference should exist between our civil and criminal codes. Lawyers with whom rules and precedents have great weight, and whose knowledge of insanity is derived from others, mostly hold to the doctrine, that to exempt a man from the punishment of his crime he should be proved to be ignorant of right and wrong—as unconscious as an infant. Physicians who are brought into actual contact with insanity have been rather inclined to err, if at all, in the opposite direction. They know, as a matter of fact, that there are in our asylums hundreds of undoubted lunatics who, if the first doctrine were true, should be expiating their crimes. On the other hand it is not to be denied that many a sane criminal has been pronounced mad and sent to Bethlem. The "glorious uncertainty of the law" is nowhere more exemplified than in what relates to insanity. Nor will Sir James Wilde's judgment remove this uncertainty; for, although it lays down a fixed and arbitrary rule, it introduces fresh perplexities, and its application will demand new and more strict definitions. At the same time there is reason to fear that a rigid adherence to this decision may give rise to injustice, or possibly encourage fraud; while it increases instead of diminishing, the divergence between our civil and criminal law which, in this respect, evidently guards property more jealously than life.

Notes on Current Topics.

WATER SUPPLY AND CHOLERA.

Last week we presented our readers with a report of the important evidence of Dr. Letheby before the Royal Commission appointed to inquire into the water supply of London. The value of this evidence it is impossible to exaggerate. If Dr. Letheby stands almost alone as an opponent of the "water theory," he is well able to maintain his position, so well able, in fact, that we have preferred to report his opinions in his own words rather than give a condensed summary of them.

Leaving our readers to digest this evidence, we turn for the present to the opposite view. The 9th report of the

Medical Officer of the Privy Council has just appeared, and in it will be found a number of important papers on the subject, the conclusion at which it arrives being diametrically opposed to that of the learned Professor of Chemistry at the London Hospital.

To Mr. N. Radcliffe was entrusted an investigation into the origin of the epidemic in the eastern districts of London last year, and that gentleman, in a very able report, fully endorses the opinion that the outbreak was owing to the fault of the East London Company. In order to be thoroughly impartial we quote his own words. He says :—

"The theory which best includes the principal facts of the explosion in the east districts is that of one day's distribution of the cholera poison, in the drinking water, largely diluted, but still in an efficient state. It is not necessary for more than one day's distribution of the poisoned water to account for the ascertained phenomena ; and this assumption best permits a reasonable explanation, so far as I can at present see, of the immunity of certain districts from the explosion, for it appears that on the day early in July, when water from the uncovered reservoir was used, a certain amount of good water had been distributed before the impure water was admitted into the mains, and this might explain the immunity of certain particular spots, such as Stamford-hill and North Woolwich. It remains, then, to inquire whether the water of the River Lea at Old Ford, admitted directly into the uncovered reservoir, and subsequently distributed, was charged with cholera poison. The answer is in the affirmative. Into the River Lea passed the evacuations of the two fatal cases occurring in Priory-street, and that signalled the commencement of the outbreak (June 26th) in the east districts. It should be observed that dilution, up to a certain and extensive degree, does not lessen the activity of the cholera poison."

The various facts which first caused suspicion to fall on this company and then led to so general a belief that to it was to be traced the terrible explosion of the epidemic last year, were so fully given to our readers at the time, that we may quote another paragraph from Mr. Radcliffe's report, with the assurance that this summing up will be easily followed. He thus epitomises his indictment :—

"I have shown that the River Lea was infected with the discharges of cholera patients on the 26th and 27th of June, about 600 yards below the northern uncovered reservoir of the East London Water Company's works, and that this infection took place under conditions of temperature peculiarly favourable to the decomposition of the excrementitious contents of the river. I have shown that the northern reservoir in question is, most probably, liable to soakage from the Lea, and that water from this reservoir was distributed for domestic use to the localities supplied from Old Ford, late in June and early in July. It is difficult not to read the entire history of the explosion in the east districts of the metropolis and in their suburbs in the sight of these facts, and conclude that the northern uncovered reservoir was drawn upon within the four or five days preceding 11th July, and that the water of this reservoir had been infected with choleraic poison by percolation from the River Lea ; or that a portion of the water of the Lea so infected had been drawn directly into the service reservoirs through some flaw in the conduits leading between the covered and uncovered reservoirs."

There is no need for us to do more on this occasion than remark that Mr. Simon, in a very complimentary criticism on Mr. Radcliffe's reports, accepts his conclusion. Mr. Simon also suggests to the Lords of the Privy Council that "wilful or neglectful distribution of polluted water should be punishable under the statute law in a much higher degree than it is at present."

We wonder whether so practical a suggestion will be buried for ever in this Blue Book. If so, what is the use of the report of their medical officer to the Lords of the Privy Council?

We shall probably shortly return to this subject, as well as to a consideration of the other contents of this ninth report of Mr. Simon. A Blue Book of this kind is not to be disposed of in a single sitting, especially when it contains so much about so fearful an epidemic as the cholera of 1866. We have only been anxious, while the subject is fresh, to keep our readers fully *au courant* with all that occurs, by impartially stating the views of all authorities, without in this place advocating or endorsing any.

CHOLERA IN ITALY.

We regret that since our last remarks on this subject the news should have been continuously unfavourable. The Northern part of the Peninsula has suffered as well as the Southern. In Piedmont and Lombardy many of the pleasant valleys are more or less desolated by the epidemic. The following figures, given on the authority of the English Consul in North Italy, are up to the 15th inst. :—

	Date.	Cases.
Province of Bergamo ...	Aug. 9—12 ...	93
Province of Brescia ...	Aug. 11—12 ...	124
Province of Milan ...	Aug. 13—14 ...	94
Province of Turin ...	Aug. 7—14 ...	77
Province of Novara ...	Aug. 13—14 ...	13
Town of Como ...	Aug. 10—11 ...	2

Other parts continue to be reported as infected. But Northern Italy may be pronounced free from the disease when compared to the more southern portions of the Peninsula.

A terrible outbreak has occurred at Rome. The death of the ex-Dowager Queen of Naples, Cardinal Altieri, and the Bavarian minister, were in themselves events that could not be concealed, and which rendered it impossible any longer to deny the existence of the disease in the Eternal City and its suburbs. Add to this, that at the beautiful retreat of Albano, to which all visitors to Rome should drive, there occurred an outbreak so sudden, that in the first night there were nearly 200 cases, and this in a population, which, allowing for the late influx of visitors at the opening of the season, would not much exceed 4,000. It was to this little town, so snugly ensconced amongst the Tusculan Hills, that Cardinal Altieri—the most important personage in the Roman hierarchy after the Pontiff himself—had retired, and there toiling amongst the terror-stricken people, he too was seized by the fatal disease. Rome has too long been proverbial for its utter want of sanitary measures, that no one will feel surprised that the disease which we believe has in truth never left it since last year, should burst forth with terrible fury.

Still further south, the accounts are equally sad. In Naples different reports speak of 15 to 20 per day. The filth of this town we have previously described. In our experience it is more unwholesome than Rome itself. The bay of Naples—boasted of as the most beautiful in the world—is but one huge cess-pool, and the Neapolitans have spent a dozen years in preventing an English gentleman carrying out a scheme for giving them good water. From Catania and Girgenti improvement is reported.

In Palermo the scourge is very fearful ; 100 victims were buried in one night, and about 100 more remained unburied for want of persons to perform that duty. On the 10th inst. there were 405 cases, of which 322 were fatal. There is a complete panic, and no doubt many people really die of fear. The absurd belief that the doctors poison the water

at the instigation of the government, still prevails. Besides the numbers given above for the city, in the provinces of Palermo there were 92 cases, out of which 85 were fatal on the 10th. The bulletin of Catania for the same day gives 30 cases, and 22 deaths. Some deaths have also taken place at Messina, where the greatest anxiety prevails. For the whole of Sicily the reported cases in the week ending the 8th, were 6719, and the deaths were 4842. In the week previous, the numbers reported were 6612, and 3512 respectively.

SCOTLAND.—STATISTICS.

The return of the Registrar-General for the second quarter of 1867 has just been published, and is, on the whole, favourable in Scotland, as in England generally. It seems that no epidemic has been prevalent there during those months. Fever, in general, and the diseases of children, where they have occurred, have retained their ordinary features, and no cases of epidemic cholera have been recorded. The whole number of deaths registered in Scotland in the quarter is 17,467, the proportion being 22·0 to every 1000, which is somewhat less than the average of the same quarter for the preceding ten years, but above the proportion in England, the latter being 21·1 per 1000 of the population. In comparing the town and country districts, the Registrar-General remarks the fact that, though taking the whole of Scotland, the mortality was less than in the same quarter for the past ten years; yet there was great disproportion between the town and country districts, 11,159 of the deaths being registered in the former, and 6305 in the latter. If, therefore, the towns were taken alone, the mortality would be in excess, the proportion there being 25·9 per 1000, but only 17·3 in the country, so that the more favourable condition of the rural districts has more than balanced the increased mortality of the towns, and reduced the general average below that of the past ten years. It was found also that as the weather became warmer the deaths diminished. In April, when the weather was cold and rainy, and the mean temperature 43·3 deg., the deaths were 206 daily. May, also, was cold, especially towards the end, but the mean temperature was higher, being 47·5 degrees, and the daily deaths were reduced to 194; while there were only 174 deaths daily in June, when the weather had become warmer and the mean temperature had risen to 54·3 degrees. This latter month was peculiar in its character this year. It was cooler than the average of former years—there was more cloud, less sunshine, and less rain, though more humidity in the atmosphere. There was frost on the morning of the 21st. The births registered in Scotland were 30,393, or 38·3 per 1000, which was much above the average. Of these 2730 were illegitimate, that is, 89 per 1000, or one in 11 of the whole number. After allowing for emigration, the increase of the population was 8244 in the quarter. There were 5602 marriages in the same quarter, or 7·0 per 1000 of the population, the exact average of the season for ten years past, but below the proportion of 1866. It is found also, as in England, that where trade is good and wages high, the marriages increase, but, when trade declines, the marriages become less, and the rate of illegitimacy higher. Thus, in Tomintoul, in Banff, there were no marriages last year, and the illegitimate offspring was proportionately higher.

THE PUBLIC HEALTH.

In the thirty-third week of the year, ending August 17th, there were 1391 deaths registered in London. This is 54 in excess of the estimated average corrected for increase of population. Thus, the long period in which the deaths have been below the average has closed, and we now have an excessive mortality. The deaths of 181 children and 19 adults were caused by diarrhœa, and 11 children and 4 adults died from cholera or choleraic diarrhœa. During the corresponding week last year, the deaths from diarrhœa were 194, and from cholera 455. The Registrar-General remarks, that although the great heat which prevailed has not increased the mortality to a great extent, every precaution should be taken at a time when cholera is epidemic on the Continent. The remarks we have lately felt called upon to make on this subject, could not receive more decisive confirmation. The mortality of London, Liverpool, Manchester and Birmingham, have all been increased during the last few weeks by the prevalence of diarrhœa. The fatality of this disease last week, was in every thousand persons living, 3·4 in London, 5 in Liverpool, and 6 in Birmingham. The number of the last town is remarkable since it is usually comparatively free from the disease. The devastation produced in Italy by cholera, ought to be sufficient to urge our home authorities to the utmost exertion. It is idle to ignore the danger until too late. Mere spasmodic efforts made in the moment of terror will never be equal to the continued, calm preparation, with which it is our duty to await the enemy. Pure water and plenty of it, the complete cleansing of all foul streets and filthy alleys, the removal of all offensive heaps of decaying matter, a constant war against all kinds of dirt—these are the resources to which we should resort, not merely in times of epidemic, but regularly throughout the year, and with redoubled stringency in such tropical weather as we have lately experienced. Once more we urge the discharge of these important duties. Last week the annual rate of mortality in London rose to 24 per 1000. This fact ought to suffice. In Dublin it was only 21, in Edinburgh 22. In Birmingham, Liverpool, and Manchester, it reached 24, 27, and 26, respectively. In Glasgow it was 25, and in Salford actually 28. The figures speak for themselves.

THE LATE CONVICTION FOR RECEIVING A LUNATIC PATIENT.

We beg to call the attention of the Medical Registrar for England to the trial reported in our columns last week. The defendant was convicted of illegally receiving a lunatic. There is, however, a circumstance which is not mentioned in our brief report, but which may interest the Registrar. In his opening speech, according to the *Ipswich Journal*, the learned counsel (Mr. O'Malley) said, "Here was a man who called himself—he said, called himself, for they had no knowledge whatever of the fact—a medical man, but he signed himself M.D. in his communications, and who stated that he had been engaged in the same business for some years." We find also in the evidence that a letter was sent in which is the following sentence:—"I have practised as a physician, exclusively in mental diseases for twenty years, and during some period of that time I was connected with the management of a public institution." Now, if the defendant possessed the right to "sign himself M.D. in his communications," he will pro-

bably take means to explan how the learned counsel's observations should have been left unanswered. Otherwise, we think it concerns the Medical Council to know by what right he has practised as a physician so many years. It would further be interesting to hear in what capacity he was "connected with the management of a public institution." The phrase is curiously vague.

DR. ROSS AND THE VICTORIA CROSS.

The performance of surgical duties under circumstances of the greatest personal risk would seem deserving of the Victoria Cross, the most highly prized distinction our Sovereign can bestow. Yet the surgeon of the 67th Regiment, which Dr. Ross then was, must be content to have this honour refused because foreign service deprived him of the opportunity of verifying and urging his claim at an early date. So the memorandum of the War Office, "Too late," would lead us to suppose. At the storming of the Taku Forts, Dr. Ross rushed across the open to aid a wounded man, and leaving Mr. Richardson, his hospital assistant (who has been decorated with the V.C.), to follow up his treatment, returned at great personal risk to attend a soldier of his own regiment, as well as his Colonel afterwards. After a careful study of all the circumstances, as attested by certificates usually produced on such applications, we feel confident that this distinction was never more fully earned.

VACCINATION RETURNS.

In the year ending Michaelmas, 1866, the number of persons vaccinated in England by the public vaccinators, in the parishes under the Poor-law, was but 460,089, and of those successfully vaccinated only 454,885. The births in the year were 743,859, so that the number of persons successfully vaccinated was equal to only 61 per cent. of the number of births, a lower proportion than has ever before been recorded in the list of vaccinations of the last fifteen years. One-fourth of the vaccinations were of persons above a year old.

THE NEW POOR-LAW.

This measure, which received the Royal assent on Tuesday week, was issued on Thursday. By it the Poor-law Board is converted into a permanent institution. By this change there can be no doubt that this central authority will acquire much greater influence. That some central authority is necessary to protect both the sick poor and their Medical Officers, and to serve as a court of appeal from the tyranny of ignorant Guardians has been too long manifest to require to be re-asserted.

THE POOR OF PARIS.

A new enumeration of the indigent poor of Paris—that is, of those who receive public assistance—has lately been published. From it we learn that, in proportion to the entire population (1,799,980), this indigent class was equal, in 1866, to 1 in 17-12. It numbered 105,119 persons, composing, 40,644 households, which is larger than the number assisted in 1861 and 1863. As usual, they are distributed very unequally among the 20 arondissements. That of the Elysée has only one in 53-65; the Panthéon one in 12-60; Ménilmontant one in 10-52; the Observatory one in 9-25; and the Gobelins 1 in 6-21. The proportion contributed by the department of the Seine is no less than a quarter of the whole number. This is probably to be accounted for by the natural attraction towards the metropolis. The average amount annually given to each household receiving relief is 48f. 65c., or 18f. 65c. per person, which is exactly 5c. a day; but, in addition, medical aid is very extensively and completely organised. The 40,654 indigent families occupy only 40,131 rooms; 9665 of these have two beds; 5422, three; 1170, four; 142, five; and there is one which contains even seven beds. Last year the total sum spent somewhat exceeded 4,000,000 of francs. Of this, 2,285,340 francs were given in the form of food, clothes, bed-linen, and small sums of ready money.

CHLOROFORM IN MIDWIFERY.

At a meeting of the Obstetrical Section of the British Medical Association the following conversation took place, which I jot down from memory, thinking that the publication of it will prove instructive and useful to many of my country brethren.

Sir James Simpson, having consented to answer any questions put to him on the subject of the administration of chloroform, commenced by stating that at the present time nearly every woman in Edinburgh was delivered under the use of chloroform, and so few bad results had occurred that he could not now refuse to any case the boon provided by science for the relief of suffering humanity. He was then asked how he used it. He replied that every one had their own favourite method; a very general way was by spreading a thin towel loosely over the face and dropping the chloroform on it. For his part, he used a napkin, folded up as a cylinder, dropping the chloroform on the interior, and admitting more or less air by opening or closing the end of the cylinder remote from the mouth; he always rubbed a little fine oil over the skin of the face, to preserve it from the irritation produced by the vapour of the chloroform.

Question.—Have you known it to produce convulsions?

Answer.—When I first used it I was rather afraid of this result. But, in the first place, I never met this occurrence; and secondly, I soon found that Dr. ——, of Glasgow, introduced it as a remedy for this very affection, and its use in such cases has gradually extended. My experience would lead me rather to look on it as a prevention than a provocation to the occurrence of convulsions, and naturally so when we consider how much of the tendency to convulsion depends on the nervous excitement and irritation of unrelieved labour.

Question.—What about puerperal mania?

Answer.—I cannot recall any case having occurred where it had been used, but I will tell you a curious circumstance, knowing how extensively it is used in Edinburgh. I visited the great Lunatic Asylum of the City at Morningside, and, on enquiring, found that there were eleven cases of puerperal mania under treatment. I traced out the history of each case, and found that not one of them had been confined under the use of chloroform. Duncan and Flockhart, the chemists in Edinburgh, prepare 1400 doses of chloroform daily, now, if as many doses of salts were distributed, we would have had as many untoward events from diarrhœa as we have had from chloroform. It should be always given in the recumbent position, as most of the deaths that have followed the use of chloroform occurred in trifling cases where it was given in the upright position.

Question.—Is there any means whereby we can distinguish chloroform that is unfit for use?

Answer.—Not that I know of. It is the best way to go to the best shop.

Question.—But if the best shop be eighty miles away?

Answer.—It keeps very well for a long time, several months. (Here Dr. Macnamara stated that good chloroform should smell sweet and free from acid, and if dropped on the hands should leave no smell after a few minutes.)

Question.—When do you begin to give it?

Answer.—Well I can't exactly tell you. A good rule is whenever the patient begins to weary of pain. She should be allowed to inhale it only when in pain, and not during the intervals.

Question.—Have you found it promote hæmorrhage.

Answer.—I have not. The moment the head is born you should sweep away the towel and use the chloroform no longer. If you adopt the plan I do, I believe it is an old Dublin plan, of following down the contraction of the uterus with the hand

while the child and placenta are being expelled, and holding your hand for some time on the contracted uterus, I believe you will not meet more cases of hæmorrhage with the use of chloroform than without it. (Here Dr. Beatty entered the room, and bearing testimony to the great advantages he had found in its use, being one of the first who used it extensively in Ireland; yet, he thought that he was satisfied that its use did, in some measure, predispose to hæmorrhage, and that therefore about the close of every case in which he used it he gave a dose of ergot).

Question.—Does it delay labour.

Answer.—No, on the contr ry. I think I have often saved much time by its use.

Here Dr. Macnamara bore strong testimony to the great value of chloroform generally, and eulogized it as a boon of mercy to mankind, and stated that it appeared to him that the more wretched the sufferer the greater the need for its use.

Question.—Are there any particular symptoms indicating that chloroform is taking effect, so as to guide one how far they should go with it.

Answer.—Nothing particular.

A gentleman here asked Dr. Macnamara if he had ever observed a tendency to spit or expectorate when the chloroform was taking effect. Dr. Macnamara said such was the case, but his remarks were rendered inaudible by a movement to break up.

Sir James Simpson stated strongly that he never had heard indecent language from patients taking it, in which he was supported by Dr. Macnamara, but persons who understood foreign languages often used them.

BRITISH ASSOCIATION.

The thirty-seventh annual meeting of the British Association for the Advancement of Science, will be held from the 2nd to the 11th of September, at Dundee. The programme includes a number of subjects that cannot fail to interest the profession. The Royal Exchange Reading-room will be opened as a reception-room on Monday, September 2, for the issue of tickets to members, associates, and ladies, and for supplying lists, prices of lodgings, and other information to strangers. The member's ticket contains a map of Dundee and particulars as to the rooms appointed for sectional and other meetings. A branch post-office (which will be available also for communication between members attending the meeting) will be opened for this occasion in the reception-room. Members and associates may obtain railway pass-tickets and information of local arrangements on application to the local secretaries at Dundee. The general committee will hold its first meeting on the 4th of September, at one P.M., for the election of sectional officers and the despatch of business usually brought before that body. The general committee will meet again on the 9th, for the purpose of deciding on the place of meeting in 1868. The concluding meeting of this committee will also be held on Wednesday, the 11th of September, when the report of the Committee of Recommendations will be received. The first general meeting will be held in the Kinnaird-hall on Wednesday, September 4, at eight P.M. precisely, when Mr. W. R. Grove, Q.C., M.A., F.R.S., &c., will resign the chair, and his Grace the Duke of Buccleuch, K.G, F.R.S., &c., will assume the presidency and deliver an address. The different sections will assemble in the rooms appointed for them for the reading and discussion of reports and other communications, on Thursday, September 5th; Friday, September 6th; Saturday, September 7th; Monday, September 9th; and Tuesday, September 10th, at 11 A.M. precisely. The sections are the following:—A.—Mathematical and Physical Science—In the High School. President, Professor Sir W. Thomson, D.C.L., F.R.S., &c. Vice-Presidents, Professor Kelland, F.R.S., Mr. Clerk Maxwell, F.R.S. Secretaries, Professor Clifton, M.A., Professor G. C. Foster, M.A., Professor Swan, F.R.S.E. B.—Chymical Science—In the High School. President, Professor Thomas Anderson, M.D., F.R.S.E. Vice-Presidents, Mr. Maxwell Simpson, F.R.S., Professor Williamson, F.R.S. Secretaries, Mr. A. Vernon Harcourt, Secretary C.S., Professor Liveing, M.A., F.C.S., Dr. Russell, F.C.S. C.—Geology—In Panmure-street Chapel. President, Mr. Archibald Geikie, F.R.S., F.G.S. Vice-Presidents, Sir Philip Egerton, F.R.S., Professor Ramsay, F.R.S. Secretaries, Mr. W. Pengelly, F.R.S., Mr. H. Sorby, F.R.S. D.—Biology—In the High School. President, Professor Sharpey, Secretary R.S. Vice-Presidents, Professor Allman, F.R.S., Sir John Lubbock, F.R.S. Secretaries, Dr. Spencer Cobbold, F.R.S., Mr. H. L. Stainton F.R.S., Rev. H. B. Tristram, M.A., F.L.S., Professor W. Turner, M.B., F.R.S.E., Mr. E. B. Tylor. E.—Geography and Ethnology—In the Albert Institute. President, Sir Samuel Baker, F.R.G.S. Vice-Presidents, Mr. John Crawford, F.R.S., Sir Roderick Murchison, F.R.S. Secretaries, Mr. H. W. Bates, Assistant Secretary Geographical Society; Mr. Clements R. Markham, F.R.G.S.; Mr. O. W. Nash, Mr. Thomas Wright, M.A. F.—Economic Science and Statistics.—In Euclid-street Chapel. President, Mr. M. E. Grant Duff, M.P., M.A. Vice-Presidents, Dr. Farr, F.R.S.; Colonel Sykes, M.P., F.R.S. Secretaries, Professor Leoni Levi, F.S.A.; Mr. Edmund Macrory. G.—Mechanical Science.—In Watt-hall, Constitution-road. President, Professor W. J. Macquorn Rankine, LL.D., F.R.S. Vice-Presidents, Mr. W. Fairbairn, F.R.S., General Lefroy, R.A., F.R.S. Secretaries, Mr. P. Le Neve Foster, M.A. The following general and evening meetings have been arranged:—On Wednesday evening, September 4, at 8 P.M., in the Kinnaird-hall, the President's address. On Thursday evening, September 5, at 8 P.M., in the Volunteers' Hall, soiree. On Friday evening, September 6, at 8·30 P.M., in the Kinnaird-hall, a discourse will be delivered by Mr. Archibald Geikie, F.R.S., Director of the Geological Survey of Scotland, on the Geological Origin of the present Scenery of Scotland. On Monday evening, September 9, at 8·30 P.M., in the Kinnaird-hall, a discourse will be delivered by Mr. Alexander Herschel, F.R.A.S., on Shower-Meteors. On Tuesday evening, September 10, at 8 P.M., in the Volunteer Drill Hall, soiree. Wednesday, September 11, concluding general meeting at 3 P.M. Excursions on Saturday, September 7, and Thursday, September 12.

Correspondence.

THE INTERNATIONAL MEDICAL CONGRESS IN PARIS.

(From our Correspondent.)

From sunny Italy and Spain, from the icy northern shores of Norwegia, from the vast Russian empire, and the most distant cities of the American continent, from all parts of France and Germany, medical men gathered in Paris to attend a congress, which, whatever may be its shortcomings and its ultimate results, is certainly unique in many respects. Learned men of different branches of science have become accustomed lately to meet in large numbers, but generally their gatherings comprised only those of one nationality. It was reserved to the year 1867, and the attractions of the period of the International Paris Exhibition, to bring together those of many different countries. The congress was opened in the time-honoured school of Medicine, where many eminent French professors gave utterance to their opinions. The school is situated in the Quartier latin, and contains a large amphitheatre, capable of accommodating more than 800 visitors, of semicircular shape, receiving its light through a cupola high above the chair of the lecturer. This room was richly decorated with flags of the different nations, and though deficient in ventilation, was not altogether unworthy for such a gathering.

Shortly after two o'clock the President, *pro tem*, took the chair, and was received with loud applause by more than 800 members present. Of these we are enabled to mention the following:—Drs. O'Connor, Beigel, Oppert, Mitchell, H. B. Wright, Drysdale; Messieurs Hart, Weeden Cooke, R. Dunn, jun., all from London; Dr. Ramsay from Glasgow, Dr. Robertson from Nottingham, and Dr. B. Bucknill. America was represented in larger numbers, by Drs. J. Stearnes, J. Warren, G. B. Upham, Cotman, Bowditch, Cooledge, all from Boston; by Professor Dalton, Drs. Fergusson, Hutchinson, Downs, Haines, all from New York; Dr. W. Lewis from Philadelphia; Logan, San Francisco, and many others.

Italy had sent Dr. Pantaleoni from Nizza, Professor Gamberini from Bologna; Professor Barcelli from Rome; De Marini from Turin; Drs. Fedeli, Mazzoni, both from Rome; Pallaciaci from Naples; Sangalli, Pavia; Brunett, Padua. Petersburgh was represented by Drs. Kremiansky, Professor at the Military School; Baubnoff, *chef dans la garde*; Zizourin, Physician to the Emperor; Lashkewitz, and others; Kharkoff, by Dr. Lazarewitch; Professor Melchior attended from Copenhagen; Professor Malmsten from Stockholm, Faye from Christiania; Germany sent an unusually large contingent, with

Virchow at the head; Posner and Eulenburg, attended from Berlin; Cohen from Hamburg; Seitz from Munich; Späth and Hebra from Vienna; Halla from Prague, etc.; Professor Croiq and Vlemiux came from Brussels; Dr. Fauve from Algeria; Fonieta from Pernambuco; Barbosa from Lisbon.

The greatest number were, of course, French gentlemen. Professors Brora, Gavarret, Tardieu, Lasuège, Taccoud, Axenfeld, Denonvilliers, Hérard, Rey, Mattei, and others from Paris; Villemin, and Rollet, from Lyons; Professors Labat, Teansul, Sarramea, from Bordeaux, &c.

Professor Bouilloud bade them welcome all, informing them that three other medical congresses had met in France before, the last one being that of Bordeaux, and to this one the idea of an international one was first suggested by Prof. Gintrae. The following governments had consented to have delegates appointed and to be represented:—Bavaria, by Professor Seitz; Belgium, by Professor Croiq; France, by Professor Dèvonilliers; Portugal, by Professor Barbosa; Prussia, by Professor Frerichs.

The President closed his short but pithy address by asking the members to constitute the committee, and of the two ways he suggested that one by acclamation was at once eagerly adopted. Bouilloud was proclaimed president in this manner.

The first vice-president proposed by the Committee of Organization was Virchow, and his name was greeted with loud cheers. The same office was conferred on Halla, of Prague; Lambe, of Kharkoff; De Meric, London; Polsciano, Naples; Vleminx, Belgium; Ricord, Pavis; Professor E. Gintrae, Bordeaux; Baron Larrey, Physician to the Emperor Napoleon; Professor Tules Roux, Toulon; and Professor Tenier, Lyons.

Meetings were held at two and six o'clock P.M. on alternate days during the two weeks. A banquet at the Grand Hotel was held on August 24; no other festivities were included in the programme.

On August the 16th, only four out of the nine papers were read, and a short discussion followed. A detailed report of them will be printed.

DEATH ACCELERATED BY THE SUFFOCATING ATMOSPHERE OF THE UNDERGROUND RAILWAY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The verdict given in the case of the late Mrs. Dobner, under the direction of our coroner, Dr. Lankester, induces me to intrude on your columns. Two years since, I called the serious attention of the Metropolitan Railway Directors, through their secretary, to the foul atmosphere of the railway tunnel between Edgware Road Station and King's Cross, warning them, that some day a serious charge might be laid at their doors, from the effects of the foul vapour, or in plain words, some death might occur. Such it appears has happened by the verdict, and I now repeat my warning, also the suggestions *then given*, to obviate the danger. I proposed to the secretary of the company that, as a very frequent traveller on their line, I could give evidence as to the state of air at the various stations, particularly Baker-street, Portland-road, and Gower-street, being of a nature, that some day, a passenger with delicate lungs would seriously suffer. For my own part, I now dread travelling by this line, and only to save time do so. Blessed with strong healthy lungs, I have, while waiting for a train, only a few minutes perhaps, inhaled such sulphurous vapour, that for hours after I have felt acute spasms over the region of the chest to make me quite ill and faint. I have frequently spoken to the civil porters at the stations, as to the effect the air had on them, one answer, unanimous—"Sir, it is at times, almost unbearable. What can we do, sir? we cannot complain?" A look at the blanched straw-coloured aspect of the countenances of some of these poor fellows, spoke its own tale. They reminded me of the song of the shirt, "Stitch, stich, stich, till the eyes grow dim, and face grows pale;" here it is work, work, work. Now, sir, I suppose when a bishop or a member of parliament is choked, a sensation death will stir up the directors *to do something*. I have asked the question, if any of the rat family, who delight in sewers and dungeons dark, are ever seen in the railway tunnel, the answer is "never". Master rat has clever instinct, and I expect clears out of this line pretty sharp, he does not like odour diabolic, then why are two legged animals, who pay their money for a quick run into town to have "Hobson's choice?" Well, sir, my proposition, which I mentioned to several engineers and scientific gentlemen, and met their approval, previous to writing to the Secretary of the Company, was as follows:—

"To erect ornamental iron urinals (much wanted) in several localities, between Edgware Road and King's Cross. over the arch of the tunnel, make the centre of the urinal an open cylinder, so as to allow of a current of fresh air to rush down, mixing with, and diluting the tunnel foul air, and helping the same to pass off through the cylinders or out of the openings at the various stations."

If you think that the suggestions even now repeated, are of any value, may I ask you to insert them in your widely circulated journal, and permit me at the same time to propose your sending one to any personal friend of yours, a director of this railway. It may do good.—I am sir, your obedient servant,

M'GREGOR CROFT, M.D.
Late Staff-Surgeon to Her Majesty's Royal Army Hospital.

THE EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I beg to forward to you the following examples of questions, put to one candidate, at the Quarterly Examination held this week at our College of Surgeons:—

1. What are the chemical reasons for supposing that a retrograde change of tissue occurs in the spleen?
2. Describe the sympathetic system.
3. Give a minute description of the schlorotic and choroid coats and iris.
4. How is decotum aloes compositum made? What are the uses of its several ingredients? What substances are incompatible with it in a mixture? What is the dose?

These questions were put in writing, to be answered in writing. The time allowed for answering these four questions was one hour—fifteen minutes to each question. The last question is very fair, perhaps, even easy, but sir, may I ask, how is a medical student or any one else to describe the sympathetic system in *fifteen minutes*? May I ask, Sir, what time has a student to study abstruse, and by no means well ascertained, chemico-physiology of the spleen, besides being well made up in the *minute* anatomy of the coats of the eye and iris. This, sir, is not all, for the candidate, who has already been asked the above questions on paper, is expected to describe, *viva voce*, the intricate anatomy of the internal ear. The other questions in anatomy and physiology put to this young gentleman (whom you may easily suppose was rejected) were concerning the ligaments of the wrist-joint and the fifth pair of nerves, the latter being by no means an easy subject to be questioned on. I am bound to say the examination in Materia Medica was all that could be desired.

The above questions in anatomy and physiology, look as if they had been put with a view of ascertaining what the candidate probably did not know, rather than with the object of ascertaining what he did know.

When, sir, it is remembered that the Royal College of Surgeons has instituted a two guinea fine for rejected candidates who again present themselves for examination, and does its best to compel them so to present themselves, by retaining a large portion of the fees, (paid before the candidate is granted an examination), the whole affair bears a very unpleasant aspect.

Leaving the matter in your hands, sir,—I remain, yours truly,

M.D. (Dub.), L.R.C.S.I.

[Is the Royal College of Surgeons in Ireland over sanguine in expecting from its Licentiates a knowledge of the sympathetic system, the coats of the eye, or the constitution of compound decoction of aloes? Surely if such information be beyond the calibre of any student, the accession of such a person into the ranks of the profession will do no honour to the college through whose portals he receives entrance. No doubt the more practical questions have received attention at the *viva voce* examination. It is at least fair that a candidate who is unable to pass his examination should reimburse the college for the expense, which is not done to the fee of two guineas.—ED. M. P. & C.]

THE COLLEGE OF PHYSICIANS OF LONDON.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your correspondent "Anti-humbug" has most strangely perverted my meaning. I have no objection to the Licentiates spreading themselves over the country, and rivalling, so far as they can, the other grades. Still less do I object to your correspondent, or any one else, fancying his license the best title

The point of my remark was that numbers of them were dubbing themselves *doctor*. Now, sir, the degree of doctor can only be conferred by universities; the college has no power to grant it. In fact, because men of the lower grade have not been sufficiently sensitive on this point of honour, the college makes them promise not to use the title of doctor unless they are doctors. Yet, after their promise, they do so. Scores of men can be pointed out who, on the strength of this licence, call themselves doctor. Their object is, of course, to deceive. The college is supposed to be composed of *gentlemen*, yet when we let in this lower grade, this is how our securities for gentlemanly and honourable conduct are laughed to scorn. I say, sir, that every man who uses a title which makes the public think him a graduate of a university, unless he be a graduate—however many diplomas he may possess, and whatever he may sign himself—is a complete and unmitigated humbug. I will blackball every such man who may be proposed for a higher grade as unworthy to associate with gentlemen.—I am, &c.,

A Fellow.

EXTRAORDINARY QUINTUPLE CHILD-BIRTH.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—I beg to send you the following particulars of a very extraordinary and, I would say, unparalleled case of child-birth which occurred in my dispensary district a few days since, and from the extreme rarity of such an occurrence I hope you will consider it deserving of a corner in your popular and scientific journal.—Yours, obediently, T. W. Sproule.

"Fanny Mullen, ætat. 30, wife of a labourer in the neighbourhood of Moville, County Donegal, and the mother of six children, was taken in labour at five o'clock A.M., on 1st August, just about the end of the seventh month of her pregnancy. The midwife who attended her in her six previous confinements was soon in attendance. About seven o'clock A.M., a small living child was born by breach presentation; the existence of another child was immediately discovered, when the nursetender became alarmed and sent for the nearest medical man, but before his arrival five children, and all alive, were given birth to—three boys and two girls, at intervals of from five to eight minutes from each other. The placentæ, of which there were three, quite separate from each other, two of them having two umbilical cords each attached the third one, were speedily expelled; no unusual hæmorrhage or exhaustion followed. Four of the children survived an hour, and died within a few minutes of each other; the fifth, a female and the last born, lived six hours, and was so vigorous that, notwithstanding its diminutive size, hopes were entertained of its surviving.

"The children, which I had an opportunity of examining, were all well formed and well nourished, and all very equal in size, about 12 inches long, and resembled very much in size and appearance, well developed six months' fœtuses. The mother of the children is progressing favourably."

DISPENSARY VISITING TICKETS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—On the 20th inst. a policeman brought me a visiting ticket (duly signed by the relieving officer), to go and see a farmer in comfortable circumstances, who got a beating on the 18th inst. On the back of it was written the following—viz., "As I understand it, the police wish that the Doctor should see Hoy, not to attend him as a doctor, or prescribe for him, but simply to be able to speak on a future day as to the state in which he may find him." This was also written and signed by the same functionary.

It was the desire of the farmer to get my attendance on a ticket, which was refused by a neighbouring magistrate, to whom application was made, and who attended the day before to take his depositions, and the police economising in order to find out his state, succeeded in obtaining the visiting ticket. As it would be well to show up such little curiosities, *pro bono publico*, and if you should think this deserving it, please insert in your Journal.—Your obedient servant,

F. J. Dillon Lanigan.

Ballymahon, 23d August, 1867.

Longevity in Norway.—The latest Norwegian census shows that there are in that country eighteen persons above 100 years of age, one of whom, an unmarried woman, living at Mo, in the Nordland district, is 107. There are besides thirty persons of 100 years old, of whom eleven live in that same district.

Gleanings.

Losses in the War of 1866.—The number of the *Journal of the Royal Statistical Office*, just published at Berlin gives the first official report that has been published of the losses of the Prussian army in the last war. According to this report, the effective strength of the army brought into the field by Prussia and her allies was 437,262 men (including 129 generals, and 8964 officers), and 110,192 horses. The total number of the wounded was 669 officers, and 15,508 men; of those who remained on the field, 178 officers and 2753 men; of those who died of their wounds, 64 officers and 1435 men; and of those who died of illnesses contracted during the campaign, 53 officers and 6734 men. The total loss amounts to 315 officers, 10,562 men, and 6490 horses. The number of officers wounded was relatively twice as great as that of the private soldiers.—*Pall Mall Gazette.*

Spiders.—There is a genus of small spiders in the tropics which feed on ants, and they are exactly like ants themselves, which, no doubt, gives them more opportunity of seizing their prey; and Mr. Bates found on the Amazon a species of mantis which exactly resembled the white ants which it had fed upon, as well as several species of crickets (scaphura), which resembled in a wonderful manner different sand-wasps of large size, which are constantly on the search for crickets to provision their nests with. Perhaps the most extraordinary of all is the large caterpillar mentioned by Mr. Bates, which startled him by its close resemblance to a small snake. The first three segments behind the head were dilatable at the will of the insect, and had on each side a large black pupillated spot, which resembled the eye of the reptile. Moreover, it resembled a poisonous viper, not a harmless species of snake, as was proved by the imitation of keeled scales on the crown produced by the recumbent feet, as the caterpillar threw itself backward! The attitudes of many of the tropical spiders are most extraordinary and deceptive, but little attention has been paid to them. They often mimic other insects, and some, Mr. Bates assures us, are exactly like flower-buds, and take their station in the axils of leaves, where they remain motionless waiting for their prey.—*Westminster Review.*

The Language of Belgium.—The truth is that Belgium has two indigenous languages. Speaking roughly, if you draw a line across the map from about Lille to Liège, the indigenous language south of the line is Wallon, an old form of French, but one which you cannot understand although you may understand French; and north of the line the indigenous language is what they very properly call, not Flemish, but Le Néerlandais—Netherlandish. I say they very properly call it by this name, because it is the same language, with only dialectic differences, as that spoken in Holland, which we ordinarily call Dutch. This Netherlandish is a form of German' and deserves an Englishman's notice, especially because it forms a stepping-stone half way between the modern High German and his own speech. For instance, *sieben* in German becomes *zeven* in Netherlandish and *seven* in English; the German *mittel* becomes successively *middel* and *middle*; the *buch* of the German is *boek* and *book*; *tag* is *day* and *day*. Such illustrations might be multiplied indefinitely. Every Belgian, then, has one or other of these two—either the Wallon or the Netherlandish—as his native language. And beyond this almost every Belgian of education, whether in the north or the south, speaks French. Indeed, in Brussels itself French seems to be the ordinary language adopted in the better classes of society; and, though the constitution distinctly forbids the establishment by law of any particular language as the vernacular, French is practically the language of the government. Farther north French does not appear to have obtained quite the same footing among the more cultivated sections of the people. I once was present in the north at a meeting of a committee consisting of one of their leading ecclesiastics, a most eminent artist, and a well-known man of letters, and I was surprised to find that they conducted their business in Netherlandish. On my remarking the circumstance to the last-named of the three, and saying that I expected that polished men would have conversed together in French, he replied that it was with them a matter of perfect indifference; sometimes they adopted one language and sometimes the other.—*The Argosy.*

The Aleutian Islands.—The whole group of islands bear evident signs of a volcanic origin, and volcanoes

are in a state of activity on several of the islands at the present time. Not only are the islands themselves rocky, but the coasts are so encompassed by breakers that the navigation among them is dangerous. The prospect on approaching any of these islands is also frightful and desolate. Black masses of lava appear to rise perpendicularly from the sea to a great elevation, the whole of each island presenting the appearance of pointed mountains lying close to each other, and some of them having their summits above the clouds. If there are plains they are stony, and the valleys are blocked up with fallen rocks. No trees grow among these *debris;* a few coarse grasses, dwarf willows, heathworts, and alders, constitute, with mosses and lichens, and a few Artic flowering plants, almost the whole of the vegetation in the southern islands. The inhabitants would indeed suffer much inconvenience from the want of food for fuel, but for the great abundance of driftwood which is continually thrown upon their shores. This, however, will not probably trouble the Yankees, who will boil their kettles on a volcano. An unsuccessful attempt was once made to plant the pine at Oonalashka. Curiously enough the northern islands enjoy the mildest climate, and a few shrubby plants are met with, as well as willowworts and heathworts. Gardens have also been formed in a few sheltered spots, where the soil is of a better quality, and cabbages, turnips, carrots, radishes, potatoes, and other esculent vegetables, have been successfully raised. The land animals which are met with on the islands are bears, wolves, beavers, ermines or martens, and land otters, but the numbers of fur-bearing animals, both at land and sea, have been much decreased by constant persecution. This is particularly the case with the sea-otter, whose skin is held in much estimation by the Chinese, with whom the Russians trade. Red, grey, brown, and black foxes are seen in great variety on the Fox Islands. The Russian navigators also mention reindeer, wild boar (?), and long-eared wild dogs, very ferocious—probably wolves. Seals and whales are abundant on the coasts, and sea-bears or lion-seals are occasionally met with. Both salmon and halibut are caught, and the latter, as off the coast of the mainland, are sometimes of an immense size. There can be no question as to the importance of the fisheries of Vancouver, British Columbia, and Artic America, if turned to proper account. The preservation of beef and mutton from South America and Australia, and of fish from distant parts of the globe are among the most interesting problems in the social economy of the day. There is no reason why we should not have that great delicacy *Thon marinee*, or prepared tunny, salmon, and other fish in tins from British Columbia, where the fish sometimes rot at the river-falls, as cheap or cheaper than sardines.—*New Monthly Magazine.*

SNAKES.—There are in tropical America a number of venomous snakes of the genus elaps, which are ornamented with brilliant colours disposed in a peculiar manner. The ground colour is generally bright red, on which are black bands of various widths and sometimes divided into two or three by yellow rings. Now, in the same country are found several genera of harmless snakes, having no affinity whatever with the above, but coloured exactly the same. For example, the poisonous elaps fulvius often occurs in guatemala with simple black bands on a coral-red ground; and in the same country is found the harmless snake pliocerus equalis, coloured and banded in identically the same manner. A variety of elaps corallinus has the black bands narrowly bordered with yellow on the same red ground colour, and a harmless snake, homalocranium semicinctum, has exactly the same markings, and both are found in Mexico. The deadily elaps lemniscatus has the black bands very broad, and each of them divided into three by narrow yellow rings; and this again is exactly copied by a harmless snake, pliocerus elapoides, which is found along with its model in Mexico. But more remarkable still, there is in South America a third group of snakes, the genus oxyrhopus, doubtfully venomous, and having no immediate affinity with either of the preceding, which has also the same curious distribution of colours, namely, variously disposed rings of red, yellow, and black; and there are some cases in which species of all three of these groups similarly marked inhabit the same district. For example, in elaps hemiprichii the ground colour appears to be black, with alternations of two narrow yellow bands and a broader red one; and of this pattern again we have an exact double in oxyrhopus formosus, both being found in many localities of tropical South America. What adds much to the extraordinary character of these resemblances is the fact, that nowhere in the world but in America are there any snakes at all which have this style of colouring. Dr. Gunther, of the British Museum, who has kindly furnished the details here referred to, assures us that this is the case; and that red, black, and yellow rings occur together on no other snakes in the world but on elaps and the species which so closely resemble it. In all these cases, the size and form as well as the colouration, are so much alike, that none but a naturalist would distinguish the harmless from the poisonous species.—*Westminster Review.*

Medical News.

THE Director-General presents his compliments to the Editor of the MEDICAL PRESS AND CIRCULAR, and begs he will be good enough to publish the enclosed List of Candidates for Her Majesty's British Medical Service, who were successful at the competitive examination, held at Chelsea Hospital in August 1867.—Army Medical Department, 22nd August, 1867.

Maximum number of marks obtainable, 3400. Minimum required to pass, 1034.

J. L. Corbett, 2390; R. de E. C. Corbett, 2357; H. K. Maclachlan, 2297; C. F. Pollock, 2245; W. H. Macnamara, 2182; R. T. Scott, 2161; D. M'Ewan, 2095; G. Hare, 2077; G. F. Sankey, 2054; R. A. Cuthbertson, 2047; T. A. J. Cocksedge, 2039; *Count* C. Wollowicz, 2036; F. Lyons, 2022; J. G. Randall, 1967; R. Macmullan, 1876; Mark Anthony, 1870; M. M. Gallwey, 1840; G. W. Barroll, 1796; T. H. M. Clarke, 1795; S. K. Cotter, 1778; J. Barry, 1755; J. R. Leake, 1712; J. H. Hunter, 1694; H. Morgan, 1694; J. Riddick, 1682; W. F. Bennett, 1676; D. H. B. Anderson, 1640; J. A. Anderson, 1616; G. A. Rae, 1610; F. G. Steward, 1595; J. D. Gumming, 1578; E. Fitzgerald, 1550, J. D. Crowe, 1545; J. J. O'Grady, 1517; W. O. Wilson, 1514; G. Shaw, 1508; H. Jagœ, 1460; R. Morgan, 1402; D. H. W. Heather, 1395; R. F. Maunsell, 1370; J. H. Waylen, 1340; T. Kingston, 1313; G. L. Popham, 1294; A. Anderson, 1213.

THE MILITARY SECRETARY, India Office, presents his compliments to the Editor of the MEDICAL PRESS AND CIRCULAR, and begs to enclose a list of the candidates for Her Majesty's Indian Medical Service, who were successful at the competitive examination at Chelsea in February, 1867, and who have undergone a course of instruction at the Army Medical School, together with the total number of marks obtained at the examinations at Chelsea and at Netley.—India Office, 22nd August, 1867.

Maximum.....6900. Minimum.....2200.

W. Macrae, Aberdeen, 5893; H. Summerhaye's, London, 5080; G. A. Maconachie, Aberdeen, 4833; R. Aldren, Edinburgh, 4645; T. J. M'Gann, Edinburgh, Dublin, 4520; G. Bainbridge, England, 4463; J. Arnott, Glasgow, 4223; R. H. Batty, London, Ireland, 4183; W. F. Knapp, London, 4158; J. H. Ritchie, Ireland, 4065; A. J. Legatt, London, 4005; H. De Talham, London, 3968; J. Shillito, London, St. Andrew's, 3965; J. Smith, Edinburgh, 3710; J. M'Alister, Glasgow, 3695; D. A. Kerr, Aberdeen, 3405; A. L. Hackett, Edinburgh, 3360; J. R. C. Lowry, Dublin, 3310; D, B. Long, Edinburgh, 3200; H. J. Hazlett, Ireland, 3198; D. R. Thompson, Madras, St. Andrews, 3105; R. V. Power, Ireland, Edinburgh, 3100; S. B. Haliday, London, Edinburgh, 2705; A. M'Clorg, Dublin, 2625; B. Keelan, Ireland, 2295.

A Correspondent of the *Times* draws attention to the frightful pollution of the Thames at Windsor, Oxford, and Thames Ditton. The effluvium arising from the sewers at these places, whilst emptying themselves into the river, is most fearful. He says that no alteration or improvement has taken place since his visit last year. Another correspondent of the same paper remonstrates with the Thames Police authorities for allowing so many carcases of putrid dogs to remain in the stream.

An inquest was held on the 16th inst., at Leicester, on the body of a child who was poisoned by having laudanum administered to him instead of tincture of rhubarb, the mistake having been made by a shopkeeper who sells grocery and a few drugs. On discovering his mistake, instead of promptly calling in medical aid, he ordered the child a powder and a little antimony wine. A doctor was subsequently summoned; but his efforts were of no avail. The child died in the course of the evening. The jury returned a verdict of "Manslaughter."

ACCIDENTAL PROPAGATION OF SYPHILIS.—Glass-blowing may be very dangerous in this respect. The tube, passing from mouth to mouth, has been found, in the glass-houses of Lyons, to have conveyed the disease. It is, therefore to be wished, that mouth-pieces, given to each workman, and easily adapted to the tube, may prevent such sad results. A very good idea of the mode of using the tube may be formed by examining a picture exhibited in the gallery of the Crystal Palace.

WILL.—The will of Sir William Lawrence, F.R.C.S,, F.R.S., Serjeant-Surgeon to the Queen, and late principal surgeon to St. Bartholomew's Hospital, was proved in the London Court on the 1st inst., by his son, Sir John James Trevor Lawrence, Bart., the sole acting executor; power being reserved to his two naughters and to his nephew Edward John Bevir, Esq., barrister, Lincoln's-inn, the other executors and trustees. The personality was sworn under £40,000. The will is dated November 13, 1865, and there are two codicils, October, 1866, and February, 1867, and he died July 5, aged eighty-four. He has left his books, MSS., and papers equally between his son and daughters; and his jewellery, plate, pictures, horses, carriages, and furniture to his daughters, as well as his interest in his leasehold residence, Whitehall-place. He has empowered his executors and trustees to lay out his Ealing-park Estate for building purposes, and together with all his other estate, real and personal, to be held in trust; the proceeds therefrom to be divided equally between his son and two daughters, whom he appoints residuary legatees.—*City Press.*

BALLOON MEDICINE.—Dr. Chereau, the talented contributor to *L'Union Médicale*, alludes, in a very sprightly article, to recent papers published in the *Siècle*, touching the exhilarating effects of breathing oxygen in high altitudes. The author of the papers threw out the hint that various affections might be benefited by airy voyages; and M. Chereau takes this occasion of reminding his readers that, as far back as 1784, eight short months after the first ascent of Montgolfier, a candidate for the Montpellier doctor's degree, Luillier Duché, proposed in his thesis to organise regular balloon ascents for patients likely to be benefited by large inspirations of pure oxygen. Among the affections to be thus treated, he names ague, nervous complaints, icterus, dropsy, hysteria, catalepsy, epilepsy, &c.

CASES of sunstroke are reported as having occurred during the recent hot weather in different parts of England. Eight in Essex, and others in East Sussex and Margate.

SURGERY IN HERCULANEUM.—At a recent meeting of the French Academy, M. Scoutetten read a paper on some curious surgical instruments recently discovered among the ruins of Herculaneum. The most interesting of the specimens was a species of "sound," differing in few points from the instrument employed in modern surgery.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Every MS. should bear the Name and Address of the Sender.

A.B., M.D., MCh.—Received with thanks. Shall be inserted on the earliest opportunity.

Dr. Lanigan, Ballymahon.—Your note is inserted.

BOOKS AND PAMPHLETS RECEIVED.

Railway Accidents; their Effects upon the Nervous System. Second edition. By W. Camps, M.D.

Sandown as a Residence, and as a Health Resort. By Hy. Maund, M.D.

Du Laryngoscope dans les Maladies de la Gorge. Par Morell Mackenzie, M.D.

De la Laryngite Chronique.
Par E'mile Nicolas.

Unhealthy Skin. By Balmano Squire, M.B., F.L.S. London: Longmans, and Co.

Shock. By Edwin Morris, M.D. London: Robert Hardwicke.

Digestion. By Dr. Pavy. London: John Churchill and Sons.

The Nervous System. Dr. Hirschfeld. London: John Churchill and Sons.

A Manual of Pharmacodynamics. By Richard Hughes, M.R.C.S. London: Turner and Co., Fleet-street.

On the Climate and Meteorology of the West Coast of Africa. By Dr. Horton. London: John Churchill and Sons.

Auvergne, its Springs, &c. By Dr. Cross. London: Robert Hardwicke.

Essentials of Practical Medicine. By Henry Hartshorne, M.D. London: Trübner and Co.

The American Medical Journal. Vol. CVII.

Journal de Medicine et de Chirurgie. July and August.

The Colonial Mail.

The London Review.

The Train, the Leinster Express, the Sunday Gazette, Spectator, Public Opinion, &c., &c.

MEDICAL VACANCIES.

Birmingham Lying-in Hospital—Resident Surgeon.

Royal General Dispensary—Resident Medical Officer, vice Mr. Stott, deceased.

POOR LAW MEDICAL VACANCIES.

Leominster Union.—First District and the Workhouse; salary £160 per annum for the District; £40 per annum for the Workhouse.

Newbury Union.—Second district; salary £140 per annum.

Salisbury Incorporation.—Salary, £75 per annum for the District; £40 per annum for the Workhouse.

South Molton Union.—Twelfth District.

MEDICAL APPOINTMENTS.

ENGLISH.

GLYNN, T. R., M.B., has been appointed a Demonstrator of Anatomy at the Liverpool Royal Infirmary School of Medicine.

HORNIBLOW, Mr. W., has been appointed Medical Officer for the Halford District of the Shipston-on-Stour Union, vice S. Bradshaw, M.R.C.S.E., resigned.

ILIFFE, C. W., L.R.C.P. Ed., has been appointed Medical officer to the Constabulary, Wednesbury, vice H. E. Proctor, L.R.C.P.Ed., deceased.

PEARCE, F.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for District No. 8 of the Kingsbridge Union, Devon, vice his father, F. D. Pearce, M.R.C.S.E., deceased.

SAUL, W. W., M.R.C.S.E., has been appointed Surgeon to the New Forest Union Workhouse, and Medical Officer to the Parishes of Lyndhurst, Minsteed, and Bramshaw, vice G. Nunn, deceased.

SPIER, Mr. E. W., has been appointed Dispenser at the Cheltenham Union Workhouse, vice Wood, resigned.

STOVIN, C.F., M.D., has been appointed Medical Officer and Public Vaccinator for the Wheatly District of the Headington Union, Oxfordshire, vice J. Cogan, M.D., resigned.

WEST, M. T., M.R.C.S.E., has been appointed Medical Officer for the Shebbear District of the Torrington Union, Devon, vice R. Rudall, F.R.C.S.E., deceased.

WHITMARSH, W.M., M.D., F.S.A., of Hounslow, has been appointed by the Lord Chancellor a Deputy Coroner for the County of Wilts.

IRISH.

FALKINER, F. J., M.B., has been appointed Surgeon to the County Gaol, Naas, Co. Kildare, and to the Poor-house, vice J. Kellett, F.R.C.S.I., deceased.

FITZPATRICK, J. P., L.K.Q.C.P.I., has been appointed Surgeon to the Constabularly at Naas, Co. Kildare, vice J. Kellett, F.R.C.S.I., deceased.

MORGAN, J., F.R.C.S.I., Professor of Anatomy to the Royal College of Surgeons, Ireland, has been appointed Surgeon to Mercer's Hospital, Dublin, vice W. Jameson, M.D., resigned.

SCOTCH.

GAVIN, W. A., M.R.C.S.E., of Strichen, has been elected President of the Northern Medical Association, Scotland.

GIBSON, W., M.D., has been appointed Surgeon to the Prison, Campbelton, Argyll.

Births, Marriages, and Deaths.

Announcements are inserted without charge, and must in all cases be authenticated with the signature of the sender.

BIRTHS.

BARKER.—On August 20, at 27, Wimpole-street, London, W., the wife of T. A. Barker, M.D., of a daughter

CHRISTISON.—On August 18, at 40, Moray-place, Edinburgh, the wife of A. Christison, M.D., Surgeon H.M. Bengal Army, of a daughter.

LEWIS.—On August 15, at 27, Dorset-place, Portman-square, the wife of F. Lewis, M.R.C.S., of a son.

MILLER.—On August 21, at 38, Bedford-place, Russell-square, the wife of C. M. M. Miller, Staff-Surgeon, of a daughter.

SEALEY.—On August 17, at Rochester, Kent, the wife of J. W. Sealey, Surgeon, R.N., of a son.

SHILLITOE.—On August 19, at Berch Mount, Sydenham, the wife of B. Shillitoe, F.R.C.S., of a son, still-born.

MARRIAGES.

BUCHAN—ROBSON.—On August 17, at St. Peter's, Newcastle, C. F. Buchan, M.D., of Pembury, Tunbridge Wells, to Amy, the eldest daughter of J. Robson, Esq., of West Chirton, Northumberland.

DOUGLAS—PANKHURST.—On August 20, at St. Bartholomew's, Sydenham, D. Morton Douglas, L.R.C.P., of Swansea, to Rosina S. Pankhurst, of Caledonian-cottage, Syhenham.

GARDINER—GRANT.—On August 19, at St. Paul's, South Kensington, W. A. Gardiner, Esq., Medical Staff, to Caroline Katherine, daughter of the late A. Grant, Esq., of Clonakilty, County Cork.

SHELDON—FAVENC.—On May 23, at Drayton, Queensland, W. Sheldon, M.D., of Tenterfield, New South Wales, to Mary Emily Charlotte, eldest daughter of P. Favenc, Esq., of Drayton, Queensland.

WATSON—SANDERSON.—On August 21, at St. Selskar Church, Wexford, Ireland, W. Watson, Surgeon, I ancaster, to Sarah Jane, second daughter of Lancelot Sanderson.

WILSON—BROWN.—On August 15, at Colton House, Fifeshire, by the Rev. James B. Brown, John Wilson, M.D., West George-street, Glasgow, to Harriet Joan Murray, second daughter of Walter Brown, Esq., W.S., of Colton.

DEATHS.

HUGGINS.—On August 14, at the Tavistock Hotel, Covent-garden (late of San Fernando, West Indies), W. Huggins, M.D., M.R.C.S.

JARVIS.—On August 12, at 13, Hart-street, Bloomsbury, John Jarvis, Surgeon, in his 92nd year.

MORLEY.—On August 14, at La Hauteur, St. Brelades (formerly of Leeds), G. Morley, M.R.C.S.E.

TURNER.—On August 17, at St. Leonard's, Torquay, (late of Grantham, and formerly Surgeon of the 7th Royal Veteran Battalion and of the 25th Regiment and 22nd Light Dragoons, &c., &c.), W Turner, M.D., in his 89th year.

NOTICE TO ADVERTISERS.

The Medical Press and Circular

OFFERS UNUSUAL ADVANTAGES

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WINTER SESSION, 1867.

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Pall Mall East, 1867. H. A. PITMAN, M.D., Registrar.

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June 1, 1867.

LECTURES ON

Experimental and Practical Medicine. By BENJAMIN W. RICHARDSON, M.A., M.D., F.R.C.P.

Dr. Richardson delivers a lecture on Experimental and Practical Medicine on the first Tuesday of every month (except during the months of July, August, and September), at the Laboratory, 12, Hinde-street, Manchester-square, W. The lecture hour is from 4.30 to 5.30 P.M.

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Lecture.

CLINICAL LECTURE ON CASES OF SO-CALLED HYSTERICAL DISEASE.

By C. HANDFIELD JONES, M.B.Cantab., F.R.S.
PHYSICIAN TO ST MARY'S HOSPITAL.

THERE are few questions in medicine more truly practical, or with respect to which more vagueness of thought prevails, than that which is often presented to us in the case of very many so-called hysterical disorders. I think we may profitably occupy this lecture in an attempt to attain some precision in our ideas on this subject. We should never employ a term without being fully aware of what we mean by it, and taking care that our hearers are aware also; unless, indeed, we use it in a vague manner for mere convenience sake, and understand, and are understood to be doing so. Thus, there is no objection to our using the terms hemiplegia, paraplegia, and apoplexy, provided we do not mislead ourselves or others into supposing that thereby we affirm anything relative to the nature and causation of these disorders.

It will be well, I think, if we commence by a resumè of the opinions held by some of the best authorities respecting the essential nature of hysteria. Sir Thomas Watson, with characteristic wisdom abstains from offering an exact definition, but sets forth, in graphic descriptions, the chief features of the malady in its various manifestations. We cannot but gather from his pages, that he holds undue mobility and excitability of the nervous system generally on the one hand, and an ill-regulated, "deceitful, preverse" mind on the other, to constitute the essential factors of the various phases of this "pathological Proteus." Dr. Prout's opinion may best be expressed in his own words, which no doubt convey his actual experience—"In investigating hysteric cases, we should constantly remember that the utmost duplicity and cunning may be displayed, where from mere appearances we should expect nothing but the most rigid truth, in short that the whole energies of the patient's mind are bent on deception." The cause which gives rise to this mental state, Prout believes to be the natural desire of being an object of attention when it is disappointed in its legitimate form, and perverted into a craving for pity and commiseration. He lays evidently most stress on the peculiar mental condition, and as is shown in a case, which he gives in a note, believes that this disorder may hold sway in persons whom no one would ever have suspected of yielding to it. Sir B. Brodie (Local Nervous Affections, p. 75), says, "These symptons (of hysteria) are especially called into existence, whenever from any cause the bodily powers are reduced below the ordinary standard; and it is reasonable to suppose that an opposite effect will be produced by whatever tend to elevate these powers, and maintain the general health." Dr. Copeland seems to regard the malady more as an ordinary physical, than a mentally originated one. He remarks—"that more or less susceptibility, original or acquired, characterises the state of the nervous system in hysterical persons will not be disputed; yet even in such persons the usual exciting causes, or imitations of different viscera, will not occasion true hysterical symptoms, unless they previously affect the state of organic nervous influence or of circulation in the sexual organs." He also states, however—"that he has no doubt of the fit being often renewed at pleasure, almost as readily as tears may be shed by recalling or adverting to various feelings, emotions, or circumstances, and he has even seen instances which have convinced him of the fact." Romberg seems to regard increased reflex excitability as the leading characteristic of hysteria, and next to this a peculiar physical condition, the main feature of which is indecision. He agrees with older writers in considering the uterus as the chief focus of reflex irritation, and has "seen numerous instances demonstrating the futility of all remedies, while this focus of hysteria if existing is over-looked." He states also, however, that he has obtained permanent cures of inveterate hysteria, by the prolonged use of chalybeate waters, in erethetic conditions by whey baths, and those of Schlangenbad, and where there are symptoms of gastric and hepatic derangement by suitable remedies, among which he includes the Marienbad, Kissingen, and Ems waters. Moral treatment, he rates so highly, that he says without attending to it we shall fail in other attempts at cure. On the whole, he seems to regard the malady as one in which physical derangement plays the principal part, and while admitting fully the deceitfulness of the hysterical, he does not view the manifold symptoms they exhibit as mere malingering. Dr. Conolly admitting that the disordered state of the nervous system may very frequently be induced by uterine irritation, affirms that it no less evidently arises in other cases from causes productive of irritation in other parts of the body, and also from causes acting directly upon the mind. Mr. Carter regards the convulsive paroxysm as the essential characteristic of the disease, and speaks of it as involuntary, and in the first instance solely the result of emotion. Tertiary hysteria, which he makes invariably to orginate from the paroxysm, he designates the self-produced disease, and considers the actors of its manifold scenes as nothing less than impostors and malingerers. He shows, I think plainly, that the convulsive paroxysm may occur in persons who are by no means of a peculiar mobile temperament, as the effect solely of powerful emotion, but he admits the influence of various states of constitutional debility, which diminish the power of resisting emotional excitement. With him hysteria is much more an affair of mind than of body, and in his admirable chapter upon treatment (which every practitioner should read), he plainly shows that he sets little store by drugs as means of opposing hysteria. Dr. Carpenter assents to Mr. Carter's general statement, that hysteria is essentially a manifestation of emotional excitement, *not depending* upon any local affection, though liable to be *modified in its symptoms* by the condition of particular organs. He evidently holds that the will, though strongly exerted to repress morbid manifestations, may ultimately fail to do so where the emotional part of the character is very active. He views with favour the opinion of Dr. Laycock, that certain diathesis, especially the gouty, may give rise to the hysteric paroxysms or to anomalous hysteric disease. The two last-named writers admit a considerable influence of physical, or, at least, involuntary disorder in the production of the malady. Hasse writes, the origin of hysteria depends on the combination of different causes which may, according to circumstances, prove of different efficacy either in the way of predisposing to, or exciting the appearance of the malady. He enumerates the principal causative conditions as follows:—Increased sensitiveness of the peripheral nerves, increased reflex excitability of the spinal cord, increased receptivity of the brain for sensory impressions, and a certain psychical tendency, which conditionates a helpless (will-less) yielding to external influences, and a diminution of the mental supremacy over involuntary nervous excitement; lastly, the presence of local bodily irritations, or adequate psychical influences. Here there is certainly a good deal admitted in favour of the malady being to a considerable extent of material (somatic) origin. The chief conclusion which I draw from this review of recorded experience is that no exclusive view of the nature of hysteria, using the term in its more general sense, is likely to be correct. The physical frame, and its immaterial inhabitant are both concerned, or at least may be. Which of the two takes the initiative in disorder may be a question of great difficulty, and must be determined by the circumstances of each individual case.

Before stating to you any opinion of my own on the subject before us, let me remind you of the distinction of the nervous centres so admirably laid down by Mr. Simon seventeen years ago. The convoluted surface of the cerebrum constitutes the *primary* centre. The cerebellum, the basal ganglia (corpus striatum and optic thelamus), and

the grey nerve matter which prolongs them backwards as far as the medulla oblongata, including that of the pons and locus niger, make up the *secondary* centres. *Tertiary* centres are the grey nerve matter of the spinal cord, the ganglia of sensitive nerves, and those belonging to the special senses and special movements which exist about the mesencephalon. *Quaternary* centres are the ganglia of the sympathetic. The primary centre is undoubtedly the seat of the intellectual action. What is the seat of the emotions we cannot so precisely say, it may with much probability be assumed to be in some of the secondary centres, perhaps, as Dr. Todd suggests, in the upper and posterior part of the meso-cephale. The tertiary centres, as Mr. Simon states, are chiefly the locus in which ordinary neuralgia arises. The quaternary centres preside over the several viscera. These several centres may be combined together as they commonly are in healthy action, and often also in morbid states. It is, however, quite as common, if not more so, that one or other of them are predominantly affected. It is notorious what different effects are produced in different persons by the same cause. Thus, an eccentric irritation, as in the intestines, gives rise to chorea, epilepsy, vertigo, paralysis, convulsions. The neuralgia caused by a carious tooth, as Dr. Meryon states, may produce delirium ; and the gravid state of the uterus may give rise to hemiplegia, paraplegia, chorea, deafness, amaurosis, cerebral torpor, insanity ; in fact, to more or less profound derangement of all the superior centres. Dr. Lee records a case in which dilatation with bougies was employed to enlarge the cervical canal of the uterus. After introduction of the instrument it was observed that the patient became highly nervous, sleepless at night, had frightful dreams, and complained that there was a dark cloud hanging over her spirits. Subsequently the cervical canal was incised, and violent mania followed, after which her reason was never perfectly restored (*Lancet*, 1865, June 10th). It is tolerably certain that in all instances of this kind the phenomena are as much dependent upon weakness of the suffering centre or centres as upon the irritation conveyed to them. For one who is injuriously affected by such causes as we have just adverted to, there are many who escape, because their nerve tissue is more strongly organised, more capable of resistance. Moreover, the centre which is weak in one person may be strong in another, and then, of course, the same irritation will be attended with different results. The above considerations lead me to think it no more than reasonable that the emotional centres like the others should be disordered in their function by impressions of a morbid kind arriving from the tertiary centres. It seems to me also undeniable that they may be similarly affected by impressions transmitted from the primary centre, which is, indeed, matter of common experience, and if these impressions are sufficiently intense the excitement of the emotional centres may be for the time quite uncontrollable by the calmer action of the intellectual centres. The hysterical paroxysm is then involuntary, as is exemplified in two cases related by Mr. Carter (v. p. 29, 30).

Let us now come a little closer to the actual matter before us. First, with regard to the convulsive paroxysm. It seems to me almost, if not quite a matter of certainty, that it *may* be produced in a purely material way, either by simple failure of the nerve power of the centre from some enfeebling cause, or by impressions conveyed through afferent nerves and tertiary centres to the emotional, without the intellectual centre participating in the disorder at all. A married lady who has been under my observation for many years, and who has never presented any sign of hysteria, told me that when single she wounded her hand one day at the root of the mid-finger with a knife while cutting bread. "She sat quiet for a time, afterwards she laughed, cried, and kicked." These hysterical symptoms could not have been the effect of alarm, or they would have come on sooner, and I feel positive they were not in any the least degree manufactured from a craving for sympathy, for she has since then passed through much more suffering on several occasions without any recurrence of the like. It is very much to the purpose, that several years later she cut her thumb with broken glass, soon after she felt some degree of stiffness of the jaws, and a peculiar nervousness. She took ammonia and bark, and gradually got right. It seems not doubtful to me that the manifestations of hysteria on the first occasion were produced just in the same way as those of tetanus on the second, and I entirely disbelieve that emotion was in play on either. A gentleman, after a hard day's work, had taken a walk which fatigued him ; on reaching his destination he fainted, but recovered consciousness almost immediately. While lying on the floor, unable to rise on account of the erect posture bringing back the syncope, he had the utmost difficulty to restrain himself from bursting into a paroxysm of laughing and crying, and, after recovery, he passed a very large quantity of aqueous urine. Here the hysterical manifestations, which just became so far apparent, as to cause a bystander to mention the term, were solely dependent on bodily exhaustion, and there was not the least particle of mental or emotional disorder from first to last. Sir Ranald Martin mentions among the sequelæ of sunstroke, distressing hysterical states of the nervous system, with an absence of self-control in laughing and crying, the paroxysm being followed by great prostration of nervous power. If any one should object that emotion might still be the exciting cause of the disorder, it may be replied that its causative influence must be considered trifling compared with that of the insolation. In his clinical lectures on Disorder of the Nervous System, Dr. Todd gives a case, the 48th, the subject of which was a girl, aetat 19. She was of healthy parentage, had always lived in the country, her general health had never been very good, and three years before her admission, she had had typhus fever. The catamenia were regular, lately had been excessive. She had frequent attacks of giddiness, and was subject to great variation in her flow of spirits. Two months before her admission, paralysis of motion, and sensation of the right leg commenced, extended upwards, and afterwards involved the arm, face, and tongue. She had latterly become subject to hysterical fits of a very severe kind, these continued together with the hemiplegia, *and in one of these fits* she died, eight months from the commencement of her illness. At the autopsy, considerable softening of the left hemisphere was discovered, the result of tubercular deposit. Dr. Todd views this case as an example of the hysterical diathesis highly developed, and complicating the effects of cerebral lesion. He describes the hysterical phenomena as being of an exquisite character, to a degree which cannot be fully appreciated by those who did not see the patient. To me, as I read the case, but one conclusion seems possible, viz.—that the hysterical attacks, as well as the paralysis, were essentially owing to the cerebral lesion, and I have no doubt that both were equally and completely involuntary. Had the convulsive attacks been occasioned by emotional excitement, I can hardly believe they would have caused death. It is possible that the hysterical diathesis, which this girl, as well as her sisters possessed, gave its peculiar tone and character to the convulsions, but yet I cannot doubt they were as much of physical origin as those which ensue occasionally in cases of cerebral hæmorrhage, and are like those in this case on the same side as the cerebral lesion. I have included this case with the preceding, because it seems to me to illustrate the same point, viz.—the production of hysterical fits by a purely physical mechanism, although the morbid impressions which excited them proceeded from disease in the superior intellectual centre. In my Lumleian lectures, I have recorded a very similar instance, where syphilitic tubercles on the surface of the pons varolii produced paraplegia, but left the arms almost unaffected.

(To be continued).

A petition has been presented to the French Senate asking that all mothers be compelled to nurse their own children.

Original Communications.

ON THE ALLEGED ANTICIPATION OF ACUPRESSURE BY JOHN DE VIGO.

By Sir J. Y. SIMPSON, Bart., M.D., D.C.L., Etc.

Some eight years ago, the idea of arresting hæmorrhage by acupressure first occurred to my mind, and I worked out different methods of applying it. Subsequently, when writing on the subject, I made a somewhat extensive search through such surgical literature as I had access to, with the view of finding out whether the same hæmostatic principle had been previously proposed or not. I entered on the literary part of the inquiry fully believing that such a very simple and efficient mode of staying the bleeding accompanying surgical wounds and operations would, in all likelihood, have been suggested by some surgical authority or another, and I was surprised rather than otherwise to find no trace of it whatever in the past records of practical surgery; for it is confessedly rare that we have ever, in modern days, operations or plans of practice adduced—and much less any great general principle of treatment, such as acupressure—without being able to discover some more or less distinct notices of them in antecedent times.

In the Medical Press and Circular however, it has been stated that long ago (or about 1516) the famous Italian surgeon, John de Vigo, has described *one* out of the various modes of acupressure; but the statement is erroneous, and arises entirely from a misinterpretation of the Latin description by John de Vigo of the tying of bleeding vessels. The statement itself occurs in the very able and eloquent address on Surgery which was delivered on the 8th of August by my friend, Professor Smith, before the late annual meeting of the British Medical Association, at Dublin.[1] In this address he adverts rather censoriously to the modern "systematic neglect of the works of the ancients," and to the consequent reproduction, in modern times, of some of their modesof treatment, operations, &c., "clothed in all the glittering charms of novelty." As "one example," and, in his own words, "a *most remarkable one*," he cites John de Vigo as having described the arrestment of hæmorrhage by acupressure. Professor Smith places John de Vigo in the seventeenth instead of the early part of the sixteenth century, and he gives his alleged account of acupressure in the following words :—

"He [John de Vigo] says it was the practice of some to tie the veins and arteries, when opened, with a needle and thread. 'Modus autem ligationis: eam aliqui efficiunt intromittendo acum sub vena, desuper filum stringendo.' Is not this the third mode of acupressure of Sir James Simpson?.....who, it is obvious, was not aware of the passage I have quoted."

I have been familiar for some time with this passage concerning hæmorrhage in John De Vigo's writings. But the passage assuredly refers to the ligature of vessels, and not to their acupressure.

The words as cited by Professor Smith are taken by him at second-hand from Portal (see his History of Anatomy and Surgery), who gives them in a somewhat abridged and mutilated form. If Professor Smith had referred, as perhaps he ought to have done in such a case as this, to the original work of John de Vigo, he would have found him (in his Liber de Vulneribus) describing two modes of securing bleeding vessels (in the chapter "De fluxu sanguinis et de ejus cura"), in the following words :—

"Necessarium est aliquando ligare venam presertim arteriam quia ipsa ligata locus a facili incarnatur remedio. Modus autem ligationis earum aliquando efficitur intromittendo acum sub vena desuper filum stringendo cum facilitate aut ligetur vena ipsam excoriando deinde in superiori capite cum filo optime stringatur."—(Opera Domini Joannis de Vigo in Chyrurgia 1525, liber iii., tractatus i., caput 2).

In order to understand these directions we must remember that till the time of Ambrose Paré (half a century after the time of John de Vigo) the arteries in amputations were never tied, but were always cauterised and burned.[1] Arteries and veins, however, laid open in accidental and slight surgical wounds, were sometimes attempted to be ligatured in the way described in these words of John de Vigo. The latter of the two modes which he speaks of as being used by some surgeons, consisted in exposing or dissecting out (*excoriando*) the upper orifice of the bleeding vessel, and tying it with a ligature. The other mode consisted in passing a threaded needle under the vessel, and tying or ligaturing the vessel with the thread thus introduced. But the needle was used merely as a means of carrying or passing the thread around the vessel, the thread being left as the compressing agent, and the needle at once removed.

To comprehend this point better, let me observe, before Paré's time a threaded needle was often employed (where a ligature was applied at all) to place the ligature around the bleeding vessel. Paré himself describes this as one of his well-known three modes of applying the ligature in surgical wounds. And it was employed and recommended as late as the last century, under the name of "stitching,"[2] by Shaw, Sharp, Monro, Gooch, and other surgeons in this country, and by Dionis, Garengeot, Petit, Heister, &c., on the continent. John Bell, indeed, describes in his "Principles of Surgery," vol. i., p. 223 (edition of 1826), *the* "discovery which has raised Paré to a rank not inferior to that of Harvey," as the "discovery of the *needle and ligature* for stopping arteries." Paré and all his followers used for the purpose of constricting the arteries one end of this little instrument (if we may so call it)—namely, the ligature ; while they cut off the other end of it—namely, the needle—after it had drawn through the thread. Acupressure, on the other hand, consists in inverting all this ; or, in other words, in using the other portion of the instrument—namely, the needle, and in omitting the thread.

From unfortunately forgetting these well-known facts in the past history of hæmorrhage in surgery, Professor Smith has been led into the awkward mistake of imagining that John de Vigo described compression of the bleeding vessel with a needle or by acupressure, instead of that needle being merely directed by him to draw under the vessel the thread by which the vessel was to be afterwards compressed or tied.

Any person acquainted with mediæval Latinity, and with the history of surgery, can only, I believe, read John de Vigo's passage in this one way—namely, as a description, as he himself names it, of the *ligatio* of the vessel, not the mere compression of it. Formerly I showed the passage to some of our best classical scholars, in and out of the profession, as Professor Sharp, Dr. Andrew Wood, and others, who all read it as describing the ligature, and not the acupressure of bleeding vessels. It seems to me impossible to torture with any justice—the three words,

1 Dr. Syme, in proposing a vote of thanks at the Association to Professor Smith for his address, followed up the censure of the lecturer, by remarking, "He (Dr. Syme) trusted his (Professor Smith's) observations with regard to the older writers on surgery, would have their proper effect. So far as he (Dr. Syme) was concerned, he had endeavoured (!) to inculcate upon his pupils a respect for the writings of surgeons of former generations, but he was afraid that he was not so successful as he could wish."—*Freeman's Journal* of August 9, 1867.

1 It seems not generally known that Ambrose Paré himself, though using the ligature after amputations, did not use it after such operations as the excision of the cancerous mamma. In describing the extirpation of the carcinomatous mamma, he advises the resulting wound to be "seared with an actual cautery." (See his "Workes," p. 281.)

2 The most popular English work on surgery towards the end of the sixteenth and beginning of the seventeenth century was Cook's "Marrow of Chirurgery." After describing that "dreadful" operation, amputation of the limbs, he speaks of stanching the resulting hæmorrhage by (1.) potential caustics, and (2.) actual cauteries. "The third way," he contemptuously adds "is by *stiching*, which is almost wholly rejected. See Paræus for the manner," (4th edition, p. 203.) After removal of the cancerous mamius, "the mouths (say Shaw) of the larger vessels are to be *stiched* or sewed up." (New Practice of Physic, 1745, vol. ii., p. 633.) The first Professor Monro tells us that in Edinburgh, in 1747, in amputations, "the most common practice is now to *stich* the vessels." (Edinburgh Medical Essays, vol. iv., p. 262.)

"*desuper filum stringendo,*" (tying the thread above), into tying the needle in *with* the thread ; for if that had been the meaning of the author, he would have written "filum," not in the accusative, but in the ablative.

But can we not arrive at De Vigo's meaning, by tracing the mode in which his pupils or cotemporaries tyed the vessels in wounds such as he alludes to.

Mariano Sancto—one of the most distinguished disciples of John de Vigo—has described in 1543, the method of taking up a bleeding vessel in accordance, apparently, with the principle and teaching of his master. In detailing how he secured a bleeding vein or vessel in a wound of the wrist or forearm—which had defied the efforts of other practitioners—he tells us that first he transfixed the lip of the wound above from one side with a needle down to the cut vein, which he left untouched ; the needle was then passed under the vein upwards and outwards again to the surface. In this way, says he, a loop or noose of thread or string was formed around the cut vein ; and, by firmly tying the ends of this string together, the vein and the lip of the wound were constricted.[1]

Another celebrated Italian surgeon of that day (1553) —Alphonsio Ferri—in speaking of the snaring *(illaqueatio)* of a bleeding vein or artery, recommends the vessel to be surrounded with a thread, and the two ends of the thread tightly tied together ; and he advises the thread to be carried under or around the vessel with a long curved needle. (See his work "De Sclopetorum sive Archibusorum Vulneribus," lib. ii. cap. 5.)

In John de Vigo's original Latin there is little punctuation, as Latin works in his day were printed without minor points. Professor Smith, in citing the passage as given by Portal, places a comma where De Vigo and Portal have none—namely, after "*vena.*" Probably, if a point should be inserted at all, it should be after "*desuper,*" which would then indicate the direction of the needle, and not the direction of the thread.

But we have a form of evidence of, if possible, a still more conclusive and incontrovertible kind that Professor Smith's interpretation is wrong. For we can appeal to the reading of the debated passage by the various translators of John de Vigo's works, who were necessarily familiar with his style. His works were translated into English in 1550, by Bartholome Traheron, and published as "The most excellent Workes of Chirurgerie made and set foorthe by Maister John Vigon, Head Chirurgeon of our tyme in Italie ;" and this translation was republished in 1571 and 1586. In the "Considerations in Emorosagia," the translator renders into old English the Latin passage under discussion in the following words :—"Sometimes also it is necessaries to tye the veine, and chiefely the arterie. For when it is tyed the place is soone incarned. The maner to tye it is as followeth. You must put a nedle under the veine with a cered thred, and draw it [*filum*] together softly, or else ye shall bynd the veine above, and tye the mouth with a thread." (Folio 135.)

In his well-known "Apologie," Ambrose Paré cites various surgeons and authors who had described the tying of arteries with ligature before his use of it in amputation. Amongst others he states, in allusion to the preceding passage of John de Vigo, that "John de Vigo, treating of a hemorragie in bleeding wounds, commands to *tye* the veine and the artery." (See his "Works," p. 1134.)

As I have already stated, Professor Smith has drawn his quotation of the words of John de Vigo, not from the original works of that author, but from an imperfect citation of the passage in dispute, given by Portal in his "Histoire de l'Anatomie et de la Chirurgie." Portal translates into French the passages cited by Professor Smith. He observes that it does not appear that John de Vigo had himself tried the ligature, but "Quelques-uns, dit-il, sont dans l'usage de lier les veines et les arterea ouvertes avec une aiguille garnied d'un fil, avec lequel ils resserent les parois du vaisseau." (Tom. i., p. 264.)

Of course it is almost unnecessary to observe that Portal translates the passage as meaning that the "lequel" which compressed the walls of the vessel was the thread or "fil," and not the "aiguille" or needle, or he would have written it "laquelle."

Further, if Professor Smith had read even Portal's observations correctly, he would have found him arguing in the same page that this description of the ligature of bleeding arteries with threads was as precise as anything that Ambrose Paré himself had written regarding deligation, and that hence the "*gloire*" of the invention of the ligature of arteries should be attributed to John de Vigo,—forgetting, however, as Portal here strangely did, that Paré had himself cited Galen, Celsus, Avicenna, Guy de Chauliac, Hollier, Tagaultius, Calmetheus, Vesalius, &c., as well as John de Vigo, as antecedent writers who had all mentioned the ligature of bleeding arteries and veins. In addition to this list, Dr. Adams (see his edition of "Paulus Ægineta,") cites Ætins, Paulus Ægineta, Palludius, Albucasis, Averrhoes, Rhases, Haly Abbas, Brunus, Theoderick, Rolandus, and Laufrac—as all ancient authors who describe the ligature of vessels.

Full translations of John de Vigo's Latin work have been published in the German and Italian languages.

For copies of the translations of the preceding paragraph in these French and Italian translations, I am indebted to the kindness of Dr. M'Gavan, of Paris, and Dr. Eastlake, of London, who have found these translations in the libraries near them. Both translations describe the tying of the vessels by the *thread* as the mode of closure ; and, like Portal and Trahernon, they do include the needle as in any way being an agent in the constriction of the artery or vein.

While thus showing that my friend, Professor Smith, has inadvertently, but entirely, mistaken and mistranslated the language of John de Vigo when he thought that that ancient author has described one form of acupressure, let me here add that it is quite possible, and indeed probable, that the use of the needle as a hæmostatic agent in surgical operations and wounds may yet be found in the past literature of surgery ; but I repeat, I have hitherto searched in vain for any such notice. Others may be more fortunate in the pursuit, and I for one shall not regret any success they may have in this inquiry.

In my work on Acupressure (1864) I have only alluded to John de Vigo's observations on hæmorrhage as placing him in the list of those who had spoken of the ligature of vessels before the days of Paré. At one time I thought of citing the passage itself brought forward by Professor Smith, with the view of guarding against that misinterpretation of it into which Professor Smith has fallen ; and I now regret that I had not done so. But I was advised that the interpretation was too evident to be likely to lead any one into error; and, besides, my book was unfortunately becoming far too large and long without any such discussions.

1 "Transfixi labrum vulneris acu in parte superiori usque ad venam incisam, eamque intactam reu reliqui, ex una parte. Deinde eandem acum deduxi sub ipsam venam ad partem alteram, et iterum labrum ex infera ad superam partem transfixi, ita quod laqueum incisæ venæ composuimus, cujus capita benè nectendo venam cum labro colligavimus." (See the "Compendium in Chirurgia" of Mariano Sancto in Gesner's 'Scriptores Veteres," fol. 161.)

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. IV.—DEFINITION OF FEVER CONCLUDED.

In the last paper I gave a very brief sketch of a few of the principal points whence, in different fevers, I deduced what I believed to be the only characters *common* to all fevers. I might have been induced to have added to them

certain actions of the skin as essentially connected with the subsidence of fever, from its *all but* universal occurrence. But this would have been unsafe, just as it would have been to have included the black tips of our old pens as common character, because there was only one quill without it amongst them. If you include as a common character one that is not so, there is no saying how far you may be led from a true view of the subject; leaving it doubtful may, it is true, withhold something from you, but it does not necessarily give you anything that is false. I therefore did not include in *that form* the actions of the skin. Had I done so it would very conceivably have led to restricted views, and have left unappreciated, occurrences which occasionally characterise the subsidence of fever and are the so-called "critical."

I will now state some other conclusions to which the analysis led me, and add such arguments as I have space for in support of them.

Prop. 1. Fever is essentially the result of two forces, *ordinarily* represented by *one* derived from *without*, the other from *within*, the latter being a definite, but, in different cases, *varying* condition of the body. That the phenomena result from the resistance of the body (no matter whether we call it reparative or by any other name) to an injurious influence *under circumstances of interference.* That the condition of the body constituting this interference is in general ascertainable, the common character being a minus condition of natural power, or force. I am not aware that the first proposition can be disputed, because it simply, in fact, affirms that there is some condition of body which is essential to the occurrence of fever. Nor is it inconsistent with the assertion that there are the two elements, if I admit that either may be *exceptionally* in such force as to constitute at once the disturbance from without and subductor of natural powers from within. Still, such instances are extremely rare, if they can be really said to exist, and can be inferred only from rare examples of plague or fevers of similar intensity, and from intensely severe injuries in the practice of surgery. But the rarity of such cases may be again inferred, and the actual existence of them doubted, from the fact that in certain cases, both in the history of plague and other epidemics, and certain cases which occur in the practice of surgery, examples are not wanting where intensely severe injuries, which leave a considerable interval, say many hours, between the infliction and the fatal issue, are not attended *by any fever*, nor by any phenomena denoting *attempts at repair*, or other reaction, as the case may be, on the injury in question. I must not allow the reader to mistake the meaning of "minus power," so as to infer that I mean what is usually understood by the term weakness or want of power. I do not mean that the power is not existing, but that something impedes its full exercise, and that the removal of this impediment is the thing required. Unless I make this clear, I shall be in danger of merging all fever in mere weakness, and all treatment in the use of stimuli—which would be as absurd as dangerous.

Prop. 2. That the condition of body referred to in the former proposition, is no vague state, usually expressed by the term predisposition, though, no doubt, it involves that idea, but a condition in which the organs of the body, beside the general disturbance in which all may participate, and exclusive of organic disease (which, of course, may or may not be present), are in an unnatural or unhealthy relation to each other. That this condition cannot be deduced from the symptoms, because the symptoms may be in one organ, whilst the cause of the condition is in another. The evidence required is to be deduced by a careful ascertainment, so far as that is possible, of the previous history of the patient, and the various injurious influences to which he may have been *at any time* exposed.

I regard the foregoing as the most important question in the whole subject of fever, and I am convinced that if we ever are to really improve our power over the infinitely varied disturbances comprised in the term fever, it must be from the working out more fully the problem it involves. I do not deny that it is in many cases intensely difficult. I do not deny that in some cases, from the late period at which the case may be seen, or other circumstances, it may be impossible, but I am convinced that in many other cases it is very easy, and that even in these it is too commonly neglected. In compliance with a prevailing conventionalism, it may be asked—"What right have you as a surgeon to discuss a subject so much in the province of a physician." I reply that whilst the practice of medicine shows nothing to which we cannot on this subject produce parallels in surgery, we can, in the practice of surgery, observe relations which are seldom, if ever, so clearly demonstrated in the practice of medicine, especially if we regard as common property that most instructive disease small-pox. We can see in surgery where a clean puncture by a needle is followed by fever, erysipelas and death, in one case, and where it produces nothing more than a scarcely observable disturbance for a few minutes in another. We can multiply these extreme phenomena by others of intermediate and varying intensities of sequence in almost all accidents and injuries which happen to the body, where the approach to absolute identity of the external force is such as to render it impossible to demonstrate any difference in *that* element of the disturbance.

The phenomena of intermittents may be examined in surgery unobserved by any such obscure external forces as marsh, miasma, &c., and with the discovery that an intermittent may be readily induced by the contact of a foreign body with a mucous canal in one case, and as certainly prevented by previous attention to the state of the body in another.

We learn also, in surgery, to avoid regarding as entities phenomena which are simply common characteristics of failing power, and merely culminations of antecedent conditions of disturbance, of multiform variety; and thus we avoid a barbarous nomenclature, such as typhus, typhoid, &c., or only employ it under a kind of conventional necessity, from a poverty of nomenclature, as designative of declining or exhausted power. Phenomena observable in the practice of surgery, not unfrequently supply us with means of testing the nature and influence of various conditions of the body, which have all the force of crucial experiments. Surgery also shows, by emphatic examples, how greatly modified all influences from without, whether accidents or operations, are as to the *kind* and *degree* of fever sequent on them, by the previous condition of the body.

Few things are more instructive than the results of operations in different hands, where nothing can be reasonably ascribed to any difference in the time occupied by them, or the adroitness of the operator, but where there are often great differences as to the time, and care taken in the previous preparation of the patient.

Here is, no doubt, a field which requires more careful cultivation. Even in situations where it is impossible to obtain a reasonable approximation to external circumstances, as cleanliness, pure air, and so forth, but where these very disadvantages oblige you to look more analytically to the actual condition of the individual, and to such things as may be within your control; it is very interesting to see how much may be done by painstaking. During at least twenty years of my life I had, perhaps, as much experience as any surgeon in London, as to operations performed under inauspicious circumstances. Yet, by a careful attention to the previous habits of the patient, and the actual state of the different organs, I not only obtained a great deal of information as to the real dependence of different diseases which I failed to acquire from other sources, but as regards the results of operations, both immediate, and, so far as I have ever yet learned, prospective also, successes which left me little to desire.

I cannot now enlarge on this subject without anticipating certain practical matters to which the discussion will be more pertinent.

In fever the actual state of the individual can seldom be gathered from the symptoms alone. The previous history should be ascertained as accurately as possible, no pains-

taking here is superfluous, because the previous history of the patient is the most secure source, if it be not the only one whence the *special* treatment can be deduced.

The history of fevers presents us with many examples of controversy as to the treatment of particular periods.

The treatment has been sometimes extremely different and even opposite. Yet it has appeared from the allegations of different observers, that each have had their share both of success and failure. This must, according to the true nature of fever, necessarily happen ; nothing is more improbable than that anything besides that part of the treatment which applies to all fevers, should be uniformily successful, because it assumes a similarity or identity of condition in the individual which does not necessarily exist. It treats, in fact, the so-called "fever," and not the special condition of the individual. The general treatment may have been one common to all cases, by which I mean regulation of temperature, pure air, good ventilation, repose, and subdued light, and so on ; and no doubt many hundreds of cases would recover from good general treatment alone, but when any special treatment is instituted in addition, it can only be deduced with safety by the most careful inquiry, into all the circumstances affecting the previous state of the body, for in the very same epidemic, or in a fever not epidemic, where the *external signs* may designate no *marked difference*, the special treatment required may, in different cases, not only minister to different, but even *to opposite*, indications.

Again, the accurate ascertainment of the actual condition is the more important, as in all fevers, in which you may see your way to any measure specially adapted to the individual, it is essential that it should be done *as early as you can*. If in such a case you rest your general treatment on some inert conventionalism, the time will soon go by at which any special measure may be useful. Early, you may evoke a power which you can never create. That time gone by, the very same remedies may only hasten the destruction of the powers of your patient, which they might before have successfully evoked. I know of no active remedy which I have not seen thus destructive, because either misapplied as a prevailing fashion at the time, or as inopportune to the period of the case. It is not denied that there are states of system in which violent impressions may have been made on the nervous system, which may not be resolvable into any special condition of this or that organ of the body. The very acknowledgment of the power of fear and other depressing influences on the nervous system assumes such condition. Such cases occur both in what is called fever, and from all other injurious influences, including certain forms of severe mechanical or chemical injuries seen in the practice of surgery. The treatment however, in either case, special as it may be, as contrasted with the *general* treatment of fever, is strictly analogous in both, and serves to add another amongst the various evidences of the essential nature of this apparently Protean malady.

Abernethy, in his "Eventful History of a Compound Fracture," in describing the condition of certain cases which terminated badly, was wont to say that he would ask any physician from whom he concealed the occurrence of the accident, what he called the state of the patient, and that the physician would reply "decided typhus, sir ;" and so, indeed, he might, for there is no difference in the essential nature of the condition implied, and the ordinary so called typhus of the physician. I mean that a certain injurious influence has been applied, *ab extra*, to the body, to the repair of which the interferences, *ab intra*, render the vital force, or whatever name you prefer, questionable or unequal.

But the lesson which these, and many other surgical cases, teach us is, that it furnishes the investigator with a synthetical argument. For if fever be nothing more than the vital force combating an injurious influence under circumstances of interference ; why, then, if we can place the two things together, we ought to have fever ; or, on the contrary, if we can detach the interference, we ought, then, to have no fever, such as we usually intend by that term, nor any other disturbance other than a temporary excitement, so far characteristic and inseparable from actions of resistance and repair, that we never think of it as disease.

Surgery gives us this opportunity. The compound fracture in many cases furnishes a very good example, not only of fever, but in different cases, of different kinds ; but there are numerous other cases in surgery which do this equally well, though each may exemplify different phases more or less strikingly.

The mucous canals of the body are very instructive in this way. In disorders of these canals phenomena occur which contribute their light to the real nature of fever. A patient has a bougie passed, he may complain of no pain, but presently he becomes faint, and may fall down. Another has an attack of a intermittent fever as a sequence of the same apparently trifling circumstance, but I can aver, from my own experience, that the surgeon who prepares his patient will scarcely ever meet with the latter phenomena, and very rarely, indeed, with the former. Those who have resided much in warm climates are more obnoxious, it is said, to these sequences, and I am inclined to believe so, but with a very little previous preparation they may be prevented in all. I recollect an elderly gentlemen on whom, on his coming from the country, a surgeon passed an instrument, without any preparation, and it was followed by so severe an intermittent, that it had well-nigh proved fatal. The further discussion of this subject would receive additional light from the very marked influence which a really studious preparation of the body exerts on every thing which occurs where an opportunity offers, either in the practice of medicine or surgery, and which demonstrates the "oneness" as to the essential constituents of the so-called "fever." But I have no space for discussing more fully this important subject, but must refer the reader, who really desires to test the accuracy of any views at which I may have arrived, to the analysis of which I have spoken, and which was written in continuation of "Medicine and Surgery, One Inductive Science." I shall, therefore, conclude with a few remarks. No one can doubt that already many thousands have been saved by improved conduct of what may be termed the general treatment of fever. I am convinced that another very large number may be added to the recoveries from the more accurate study of the special state of the individual.

This research is the more promising, inasmuch as we have no right to infer that any epidemic influence has any power *alone* to produce fever independently of a certain, and, as the rule I believe to be, an ascertainable, condition of body. I do not say that this can always be done, or if done, it can always be corrected. As regards the treatment of the individual, the "Analysis" contends that the object should be to excite secretion in the organ which the combined evidences of history and symptoms may have induced you to regard as having been antecedent to the fever, subjected to injurious influences, always excepting where you have determined that it is labouring under structural disease. In this case it is contended that you will obtain most benefit, by inducing secretion from some organ, which you may determine to have the most concurrent function, or the most vivid sympathy with the organ you suspect to be diseased in structure. Combining your measures, so as to include or not some excitant to the suspected organ, or avoiding all excitement of it according as your conviction of organic disease is matured, or in greater or less doubt. Some matters of treatment, as the adjustment of stimuli, and others, may again come under discussion. The subject is too vast to be more than touched on in these commentaries, and it should contain larger views than those usually taken of what is happening now and then to other animal organisations. The cattle plague might, I think, have been made much more useful. I cannot find that any investigation of the nature of the disease has been undertaken that at all satisfies the requisitions of ordinary philosophical research. Animals covered with fat itself (except in hypernating animals), a sort of

link between health and disease, and kept even in some of the least objectionable yards, breathing air contaminated with the effluvia of their own secretions, are not likely to have the maximum of resisting force. Whilst stamping out the disease in many cases by the slaughter of the affected as well as associated animals seems ignoring all possibility of acquiring any information.

The reference of other epidemics to certain waters (in the sense in which that reference is put forth) seems to me a confused mixture of true and false. It appears to me that the true expression with regard to such important matters as water, and other things in daily use, is not that they contain the germs, or by what other term, the force of the epidemic may be called, but that like all other things which contain anything unnecessary to the constitution of the body, they are daily necessitating a certain expenditure of force, which though small *de die in diem* is still a gradual diminution of that integral status of healthy force on which the full power of resistance to injurious influence, or the power of combating them, depends. As I cannot lead up to it from any point more convenient, I shall in the next commentary offer the results of certain researches in aid of developing some generalisation of the effects which poisonous, whether dietetic, chemical, or mechanical forces appear to have in common.

PAPERS ON DERMATOLOGY—No. IX.

ERYSIPELAS.

By T. W. BELCHER, M.A., M.Ch., and M.D. Dub., B.M. and M.A. Oxon.

FELLOW AND CENSOR OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS; PHYSICIAN TO THE DUBLIN DISPENSARY FOR DISEASES OF THE SKIN; &C.

(Continued from 21st August, 1867—page 174.)

SEVERAL months ago I was called in to see a gentleman of full habit, florid complexion, aged about 50; and residing in this city. At the time of my first visit, he had been ill for five days, and I found him affected with idiopathic erysipelas of the head and face. I need not detail the various symptoms of this disease, as they are to be found in all works on general medicine; but as to the cutaneous aspect of the question, I may refer the reader to page 40 of my edition of "Neligan on Diseases of the Skin." It may be added that the patient in the present case was periodically subject to attacks of this kind, in which he had been usually attended by the late Dr. Neligan. When I first visited him there was copious serous exudation from the affected parts, which were much swollen; he had not slept during the previous night; and the constitutional fever was considerable. I directed the diseased parts to be painted with mucilage of starch; also, that the patient should be fed on beef-tea, and a mixture of milk and soda-water. He was further advised to take the following mixture:—

℞ Liquoris opii sedativi minima quadraginta.
Tincturæ cinchonæ flavæ drachmam fluidam.
Aquæ camphoræ uncias fluidas quatuor. Misce.
Fiat mistura cujus sumat unciam sextis horis.

On the following day—the seventh of his illness—he was much better in every respect. The swelling was adminished, the fever had materially subsided; and the discharge was equally improved. The treatment advised and carried out on the preceding day was directed to be repeated; and he was further advised to take ten grains of the powder of yellow bark in an ounce of port wine, every four hours; and to have the affected parts stuped with decoction of poppy heads, and chamomile flowers before applying the mucilage of starch. On the sixth day from this date he was quite well and able to go about. The mucilage of starch, and other treatment above-mentioned, had been discontinued before this time, and instead thereof he had used nutritious diet, and cold cream local applications.

I shall now venture to make a few practical observations regarding erysipelas.

The term *Erysipelas* is derived from the Greek *eruthros* and *pella*. It is the *epiphlogisma* of Hippocrates; *Ignis sacer* of the Latins; *Febris Erysipelatosa* of Sydenham; *Erysipèle* of Rayer; *St. Anthony's Fire* in England; *the Rose* in Scotland;—and is well delineated in Plate I. of Dr. Neligan's Atlas.

In common with many writers, Dr. Neligan divided it into *Idiopathic* and *Traumatic*; while Cazenave arranged its varieties as follows:—*True Erysipelas*, wherein the inflammation is confined to the skin; *Phlegmonous*, wherein the sub-cutaneous areolar tissue is affected; and *gangrenous*, wherein mortification occurs.

Sir Thomas Watson, the Chysostom of Medicine, has, in his Lectures, proposed to restrict the term erysipelas to cases in which the head and face only are affected; but Dr. Neligan believed, and in my experience rightly, that not only was the disease not necessarily confined to the head and face, but that it sometimes *originated* in other parts of the body, and spread thence upwards. The late Dr. R. B. Todd, in his Clinical Lectures (Beale's edition, p. 155) observed:—"It is one of the features of this disease, that it has a remarkable tendency to spread, sometimes wandering all over the body, from face to neck, and from neck to trunk, being then termed *erratic* erysipelas."

The erysipelatous inflammation often shows itself at first on the tonsils, in which case the patient complains of sore throat, and this has been so common an occurrence in the practice of some eminent physicians, that Dr. Todd considered sore throat one of the earliest symptoms in this disease.

Erysipelas *phlegmonodes*, as already stated, indicates the extension of the disease to the sub-cutaneous tissue, and deeper seated structures; and it also is accompanied by local and constitutional symptoms of a grave character, sometimes ending in mortification of the affected parts.

The late Dr. Graves noticed the singular fact regarding the mode of the spreading of erysipelas, viz.:—That when it commences at any point of the mesial line of the body, it is apt to spread in a symmetrical manner, corresponding portions of the integuments being simultaneously attacked on both sides.

As regards the inflammation sometimes attacking the membranes of the brain, the larynx, trachea, and gastro-intestinal mucous membrane, it may be observed that while some looked on this phenomena as *metastasis*, and therefore considered it a distinct variety, under the name *Erysipelas Metastaticum*, Dr. Neligan regarded it as merely an extension of the disease, having remarked that in all the cases which he had seen, the original local affection remained unaltered. Of *Traumatic* Erysipelas I need say nothing, as it properly belongs to surgery.

Frequency of Erysipelas.—It may occur at any age, even in newly born infants, in whom it attacks the umbilical region. It is believed to be more frequent in females than in males; in adults, than in the very young and very old; and I have known it to be a frequent enemy of men, who unhappily gave themselves up to the miserable slavery of drinking habits, being never drunk, and yet never sober.

Causes.—Excluding the causes of the traumatic form, the most common predisposing causes are cold, wet, deprivation of customary food and stimulants while exposed to inclement weather. The sins of gluttony and drunkenness, especially when conjoined with intense mental anxiety, are also fruitful predisposing causes; and the same may be said of violent mental emotion—bad passions, ill tempers; and—in young children—vaccination.

Contagion.—A vast amount has been written as to whether Erysipelas is contagious or not. I believe it is, and always act as if it were; and seeing that so much may be said on both sides of the question, the prudent course for a practitioner who does *not* believe in its contagiousness, is obviously to act as if it were a doubtful matter.

Persons who have once had Erysipelas, are peculiarly liable to contract it again, and as a matter of fact, often do so.

Diagnosis.—From Erythema it is distinguished by the severity of the constitutional and local symptoms; the smoothness of the surface, and particularly by the burning pain and tension. From the eruptive fevers—by the uniform redness of the erysipelatous surface. From phlebitis—by the absence of the cord-like feeling and linear inflammation. From synovitis—by the disease not being confined to or originating in the integuments of the synovial membranes.

Prognosis.—In general favourable, except in the aged, the infant, or in broken down constitutions. A low typhoid type, or the fact of the disease attacking an internal organ, indicates danger. If the larynx and glottis be attacked it mostly proves fatal, and that very rapidly, owing to the tumefaction which closes the respiratory tube.

Pathology.—It is evidently an acute inflammation of all the structures of the skin, and particularly of the vascular rete. According to some, the seat of inflammation is in the capillary lymphatics; while, according to others, it is situated in the capillary veins of the integuments.

Treatment.—This may be constitutional, or local, or both combined. The great variety of opinions on this important matter will cause no small surprise to the student. Some believe it to depend on a deranged condition of the hepatic secretion, and act accordingly. Others bleed and starve, while their opponents support and feed. Others, again, finding the urine to be acid, adminster an alkaline treatment in every possible form. Lastly, not a few are infidels as to constitutional treatment, and almost entirely neglect it. A similar variety, or conflict, of opinions prevails as to local treatment. All this arises, no doubt, from the fact that what a man has found to be successful in his own cases, he naturally thinks the best; forgetting the various and even opposed nature of different phases and types of the disease, at different times, and in different places. As to constitutional treatment, I think bleeding unnecessary and injurious, and antiphlogistic medicine and regimen, in many cases, equally so. The treatment detailed in the case above given, may, I think, be adopted *mutatis mutandis*, in typical or ordinary instances of idiopathic erysipelas. The supporting method is, I believe, absolutely necessary in cases occurring in large towns; and the judicious administration of stimulants has, in my experience, been attended with excellent results. Beef-tea, wine, or brandy, bark, and occasionally opium, may be regarded as so many flukes to one sheet-anchor in managing these cases.

℞. If internal organs be attacked, derivatives are, of course, useful; as are some active purgatives, such as the turpentine enema.

Of the many articles of the Materia Medica, commonly used to cover or protect the diseased and painful parts, I know of none better than mucilage of starch applied each day, and washed of with poppy and chamomile stupes. In the year 1856 I published, in the "Dublin Hospital Gazette," records of cases of small-pox and erysipelas, which were locally treated thus. Since that time I have treated many others in hospital and private practice, with an amount of success which fully justifies me in recommending it to my professional brethren. In recommending this plan, I by no means wish to deny the value of other local remedies, many of which are given in pp. 51-57 of my edition of Neligan on the Skin. I have seen several of them used with much benefit, but as the practitioner seeking for a good application in cases of erysipelas is often *bothered* (to use an expressive, though inelegant term) by the multitude of drugs paraded before him in books; it may not be thought out of place to lay before him—as I now venture to do—one which I can confidently recommend for use in all ordinary, and many severe, cases of this disease.

ON THE USE OF THE SYRUP OF THE PHOSPHATES OF IRON, QUININE, AND STRYCHNIA.

By HUGH WHITE, L.R.C.S.I.,

MEDICAL OFFICER CASTLETOWN DISPENSARY DISTRICT, BALLINGARRY, COUNTY LIMERICK.

Case 1.—A. B., aged 15—strumous diathesis—very tall for his age, accustomed to enjoy the usual field sports, such as hunting, shooting, &c., first complained of pain in the back of his neck one month after being sent to a boarding-school. The accession of pain was sudden; it was of an acute character, and confined to the region of the fourth and fifth cervical vertebræ. A diseased tooth, which was supposed to be the disturbing cause, was extracted, and attention being paid to the state of the digestive organs, no further treatment was adopted, his parents thinking as he would acquire strength in proportion to his stature, there would probably be no recurrence of the pain. However, such was not the case. He was removed to a school situate in a more salubrious locality, and given cod-liver oil for some months, but without permanent relief to his symptoms. Such is the history of the case for eight months prior to his presenting himself to me.

His statement was that when riding, particularly if going fast, or crossing a fence, the pain would occur in the region described, and of such an acute character that he felt unable to remain on horseback; that on the previous Sunday, when stepping out of the carriage to the ground, the pain came on with unusual severity, and lasted for several hours, and also that for some months he had a recurrence of pain of a more or less aggravated character three or four times daily. I ordered him:

℞. Pilulæ colocynthydis compositæ, gr. v.; hydrargyri, gr. v., in pil. ij.; hora somni summend. Applicetur papier d'Albespeyre No. 2 nuchæ colli.

I considered this a case of morbid nervous sensitiveness, with functional derangement, occurring in a strumous habit, and one suitable for the administration of the syrup of the phosphates of iron, quinine, and strychnia, so favourably spoken of by Dr. Lyons, as being well adapted for cases of this kind, where a neuro-tonic, assimilative, and blood procreative medicament, was desirable. The happy results which followed its exhibition more than realised my most sanguine expectations. This young gentleman has never had a recurrence of the pain during a period of now thirteen months. He enjoys excellent health, with increased appetite, the stomach, under the influence of the tonic, being able to appreciate the most nutritious diet, and he is now able to join in the usual rural sports, and take athletic exercise with an alacrity and vigour he was far from capable of before, which is a matter of congratulation to his parents, who feared the development of tubercle, several of the family having become victims to that dread disease, pulmonary consumption.

Case 2.—Miss R., a young lady, aged 16, nervous temperament, strumous habit, ænemic appearance, capricious appetite, with a dislike to animal food, menses occurring about every three weeks, predisposition to tuberculosis, and subject to frequent attacks of gastric irritation, complained of pain in the region of the spine from the eighth to the last dorsal vertebræ.

As I conceived this to be a case of morbid nervous derangement, with torpidity of the secreting organs, I ordered

℞. Pilulæ rhei compositæ, gr. xx.
Pilulæ hydrargyri, gr. x. M

Divide in pilulas sex quarum sumat ij omni tertiâ nocte.

℞. Syrupi ferri, quinæ, et strychiniæ phosphatis uncias duas
Sumat ʒi ter die.

Every alternate fortnight she was directed to use one teaspoonful of cod liver oil with each dose of the syrup. The cod liver oil I consider an admirable adjunct, as the syrup conceals its taste, and causes the irritable stomach to retain what it would otherwise reject.

This treatment was continued for two months, and had a most salutary effect, as the young lady acquired strength under its use, the assimilative powers were increased, and the natural secretions became healthy.

I might adduce many other cases in testimony of the decided benefit arising from the use of this syrup, which I consider is a happy and useful combination. Indeed, I think this preparation supplies a want long felt, as by its employment we can afford to the nervous, assimilative, and secretory systems, a tonic in such a minute and yet fully efficacious dose. Under these circumstances, I consider it an invaluable therapeutic agent, where malnutritive, due to the strumous diathesis, is suspected. I trust that when more generally adopted in practice, it will amply fulfil the favourable views entertained by Dr. Lyons in respect to its use, and I would also hope that it could be prepared with less expense, in order that the poorer classes who, unfortunately, suffer so much from maladies of the scrofulous and strumous diatheses, may experience through our dispensaries the beneficial results to be anticipated from its more extensive employment.

Hospital Report.

SPECIAL REPORT ON THE TREATMENT OF UNUNITED FRACTURES.

No. III.*

Professor BIGELOW'S Cases.

E. J., had been variously and unsuccessfully treated since 1857, when the accident occurred, until February 14th, 1860, when he was etherized, and a crucial incision made over the external surface of the arm over the fracture. The band of ligamentous tissue connecting the bones was divided, and each extremity of the humerus turned out. The periosteum was carefully detached, for an inch or more, from each end. The denuded ends were then sawed off. A hole was drilled through each end, and a stout silver wire passed through. The ends of the wire were then twisted, and the ends of the bone brought into exact apposition. The external wound was united with sutures; the ends of the wire were left protruding, and the former splint re-applied. After the operation, opiates were needed and freely given.

21st.—Wound smelling badly. A solution of chlorinated soda injected under the apparatus.

25th.—The apparatus was removed, washed, and re-applied.

March 5th.—Wound closing by granulation. General condition good.

23rd.—Arm apparently stiff.

29th.—To-day, the arm and shoulder becoming somewhat painful from pressure of splint and necessary want of cleanliness, everything was with great care removed; on slight examination of the arm, no motion was detected. The arm and shoulder were then carefully washed, lateral splints applied, and the hand and elbow supported in a sling.

April 4th.—The dressings were again removed. Slight mobility was detected at the point of fracture. As, however, only six weeks had elapsed since the operation, it appears to have progressed as rapidly as any compound fracture of an equally severe character could be expected to do. External wound nearly healed.

23rd.—Apparatus frequently removed. Union firmer.

June 13th.—Union appearing to be very firm, and the wire causing some pain, there appeared to be no further indication for its remaining longer. He was etherized; the wire was untwisted and removed.

July 1st.—Arm was stiff and strong, with considerable motion in the elbow.

July 12th.—At request, patient was this day discharged, being able to return to his work, which is that of a leather splitter. The arm appeared to be nearly as useful as the other one.

Case 2.—*Radius.*—Patient, A. D., farmer, aged 56, entered the hospital February 6, 1861. Four years before, he received a fracture of both bones of the right forearm, with other injuries, by being caught in machinery. No treatment having secured union, nine months after the receipt of the injury, an incision was made over the lower border of the forearm, the ends of the fractured ulna were turned out and sawed off, and the extremities then wired together. Various other means were subsequently resorted to, but with no success.

On entrance, the fractured ends of the ulna could be felt distinctly; there appeared to be some ligamentous union in the radius. He had a very considerable use of the hand.

February 9th.—*Operation by Professor Bigelow.*—He was etherized; a tourniquet was applied over the brachial artery to keep the wound dry. An incision was then made along the upper border of the radius, about two inches in length. The ends of the bone were turned out, the periosteum was dissected up, and about half an inch of each fragment sawed off. A hole was now drilled through the upper wall into the medullary cavity of each end, and the ends of the bone firmly wired together by means of a stout silver wire passing through the holes and twisted. Two small arteries required ligature. The edges of the wound were drawn together by sutures and a compress applied. The arm was placed in an external angular splint, and bandaged firmly, to prevent motion.

12th.—The pain in the arm is quite severe and constant. Considerable swelling about the wound. The bandage is daily removed.

March 1st.—Wound nearly healed about the wire. Appetite and strength excellent.

23rd.—Patient allowed to go home, to return for the removal of the wire.

February 13th, 1863.—Patient has been able to saw wood with his right arm. He came to have the wire removed, which has remained since the operation.

14th.—He was etherized. An incision half an inch in length was made over the point of fracture; the wire was divided and easily removed, two years from the time of its insertion.

Case 3—*Humerus.*—Patient, J. C., labourer, aged 24, entered the hospital November 4th, 1861. Eight months before, while turning the crank of a handcar, he became entangled in some way, and his left arm was drawn under the crank and fractured above the elbow.

Now, the left arm is about one inch shorter than the right, from the ends overlapping each other. The fracture extends from a point about four inches from the lower end of the humerus, on the outer side of the shaft of the bone, obliquely inwards and downwards, terminating at a point about two inches above the internal condyle. Crepitus and motion in the fracture are very distinct. There has apparently been no callus thrown out around the fracture. Motion in the elbow-joint is perfect.

9th.—Other means having been ineffectual, he was etherized and operated upon by Professor Bigelow. An incision, three and a half inches in length, was made through the skin over the seat of fracture. The subjacent fibres of the triceps were then divided, as was also, accidentally, the musculo-spiral nerve, with the exception of a single fasciculus, by which the extremities hung together, and which was afterwards carefully respected. The ends of the fractured bone were then turned out; the periosteum was carefully detached from both; a piece one and a half inches long was sawed from the lower fragment, and a piece one inch long from the upper. A hole was then drilled through each end of the fractured bone, and the two surfaces kept in apposition by a silver wire, passed through the holes and the ends twisted. An inside and outside

* Gentlemen who may be willing to furnish reports of cases of ununited fracture to be included in this special report, will oblige by forwarding them immediately to the Editor of the Hospital Report Department, 20, King William-street, Strand, London, W.C.

angular splint, well padded, were then applied. A single suture was introduced to keep the edges of the wound slightly in apposition. The extensors of the hand are paralyzed.

13th.—Splints were removed and reapplied. Position excellent. Slight suppuration in wound.

16th.—Splints removed, and arm dressed.

21st.—He has slight paralysis of sensation on the posterior radial aspect of forearm, and no sensation over the back of thumb and radial side of forefinger.

29th.—Appetite poor. Pulse accelerated.

December 17th.—Slight stiffening at point of fracture.

27th.—Considerable stiffness in humerus. Wound nearly closed.

January 10th, 1862.—Union moderately firm.

March 1st.—On careful examination, a slight yielding was detected at the point of fracture.

11th.—A small piece of necrosed bone came away from wound.

May 10th.—Patient was etherized. An incision was made down upon the wire, which was then extracted.

22nd.—Discharged, well.

This patient wrote, April 28th, 1867, that he was a "section hand on the Northern Railroad," had not lost a day since he left the hospital, and was "well, doing the hardest kind of work." Sensation and motion in hand perfect.

Case 4.—*Humerus.*—Patient, E. D., labourer, aged 31, entered the Hospital December 4th, 1862. A year before, his left arm was caught by a revolving shaft, and the humerus fractured. The skin was much contused, but not penetrated. Now, he has a false joint a little below the middle of the humerus.

December 6th.—Operation by Professor Bigelow. Patient was etherized. An incision, four inches long, was made over the outer aspect of the false joint, and the ends of the fragments were exposed. Both ends were irregular in shape, especially that of the upper fragment. They were bound together by a tough, pearl-coloured, gristly material, quite firm to the knife. The periosteum was dissected up and turned back from about an inch of the end of each fragment; the ends were then sawed off square, and a hole bored through each fragment at a point a quarter of an inch from their ends. The two fragments were then brought into apposition and held in place by a silver wire passed through these holes and twisted. The free ends of the wire were long enough to project from the wound. Sutures were then inserted, and angular splints, external and internal, were applied.

10th.—Suppuration well established. Splints removed, and wound dressed.

20th.—He has lost appetite during the last twenty-four hours. On removing splints, an erysipelatous blush was seen over the whole upper arm. R. Quiniæ sulphat, gr. ij., ter die. Beef-steak and wine, if he will take them.

24th.—Splints changed. Doing better.

January 2nd, 1863.—Patient is quite strong and cheerful. On removing the splints to change dressings, considerable stiffness is found in arm. Suppuration is moderate; the wound is closed, except immediately about the ends of the wire.

4th.—Considerable pain at the point of fracture, and in elbow.

14th.—He walks about.

16th.—The pus has burrowed towards the elbow. Much weaker. Beef-steak, wine and eggs.

23rd.—There is tenderness and redness over the internal condyle, apparently from the commencement of a large abscess.

27th.—He has been very wretched since the last record, from great pain in the abscess. The splints were unbearable and were removed yesterday. The arm is laid on a large poultice, with an external straight splint. The abscess was freely incised under ether, and the various sinuses were torn into one.

31st.—Patient was etherized, and the wire cut and withdrawn.

February 4th.—Patient is improving wonderfully. He sits up all day, and walks about freely.

18th.—Wound entirely closed.

26th.—The arm is quite stiff at the point of fracture.

March 9th.—Discharged, well.

Case 5—*Femur.*—Patient, B. H., teamster, aged 27, entered the hospital March 10th, 1863. Five hours before admission he was run over by a heavy team, the wheel passing over the middle of the left thigh. The whole of the left thigh is greatly swollen and ecchymosed, shortened about two and a half inches. The fracture is perhaps comminuted, and at the middle of the femur. Desault's apparatus was applied.

April 18th.—Comfortable since the last report. Desault's apparatus was removed to day. Limb in excellent position. There is apparently considerable callus, but the thigh appears flexible at the point of fracture.

21st.—A starch bandage, stiffened with pasteboard, applied to the limb from the middle of the leg to the upper third of thigh.

30th.—He sits up daily.

May 4th.—Upon examination to day, it was found that there was no union.

6th.—Desault's apparatus re-applied.

7th.—Apply over fracture emplastrum cantharidis (6 by 4).

23rd.—No union. Apply extension by weight.

August 1st.—Starch bandage was applied over leg and thigh. R. Calcis phosphat., gr. x., 3 t. d.

15th.—The starch bandage was removed, and extension by weight applied.

September 2nd.—After a careful examination, it was decided that there was no union at the point of fracture.

8th.—A starch bandage was applied, and he was allowed to sit up.

December 5th.—Patient now came under Dr. Bigelow's care. No union. He was etherized, and a seton passed between the fractured ends of bone and out through the other side of the thigh.

16th.—Profuse discharge from lower wound.

27th.—Seton removed.

February 2nd, 1864.—Discharge from wound diminished. Apparently but little stiffness.

June 4th.—Patient has continued in the same condition since the last record. There is no union. He was etherized, and the ends of the fracture were drilled in several different places.

18th.—There has not been the slightest inflammation in the thigh, produced by the drilling.

July 20th.—There has been no change in the thigh since the last report. The ununited ends of bone are surrounded by a large amount of indurated tissue, which makes it very difficult to get at them. He was etherized, and the ends of the bone were again and more thoroughly drilled. At most parts the bone was quite hard and normal, but at one point it was soft, and on withdrawal the drill was followed by quite a stream of oil from the degenerated marrow. The limb was placed in a straight splint.

November 4th.—There is no stiffness at the point of fracture.

12th.—The patient was etherized, and Professor Bigelow operated as follows:—A long, semi-circular incision was made on the outside and back of the thigh, its convexity downwards, over the ends of the bone, to favour the discharge of pus. The muscles of the thigh were found to be indurated, so that the ends of the bone were turned out with great difficulty. The ends of the bone were smooth, rounded and conical. The periosteum was then turned back for about one inch on each end, and the bones, thus denuded, cut off with a chain saw. The medullary substance was slightly degenerated and fatty. A hole was then drilled through each extremity of the bone, and a wire passed through these holes and twisted, not tight, but leaving a small space between the ends, to allow of sufficient motion to prevent breaking the wire or the bone. The periosteum was then brought together and the wound

closed by sutures. The limb was placed in a McIntyre's double-inclined, iron splint, bent at an angle of 135°. The operation occupied about two hours, during which time the patient was kept thoroughly etherized. Cold-water dressing.

13th.—He has considerable irritative fever to day. Pulse 132. Tongue thickly coated. The pain is relieved by acetate of morphia, one-sixth of a grain, subcutaneously.

15th.—Much brighter to day. Pulse 100.

16th.—Suppuration has commenced.

23rd.—The leg and thigh have remained until to-day on the McIntyre splint, but the suppuration has increased so much that it requires removal for daily dressing. A pasteboard splint has been moulded to the anterior and inner part of the thigh and stiffened with dextrine; to this the thigh and leg are firmly bound, leaving the wound open. Above this a Smith's anterior splint was applied, by which the whole leg is swung from a framework over the bed.

27th.—The splint works admirably. Less pain. The wound looks well, and is suppurating freely. Appetite good.

December 24th.—The bandages and splints were removed and reapplied. There seems to be considerable stiffening, and the bones are in good position.

January 13th, 1865.—No motion is observed at the point of fracture.

February 12th.—The limb is so firm that it was laid on a pillow, with only pasteboard splints applied.

April 26th.—Under ether, the wire was cut down upon and removed.

May 17th.—He is up and dressed. Appetite and general health excellent. He wears a dextrine bandage for the support it affords him.

June 1st.—He walks about on crutches. The knee is quite stiff.

July 1st.—Wounds entirely healed. The motion in the knee is returning.

12th.—The femur is perfectly firm and free from pain. He was furnished with a thick-soled shoe. Discharged, well.

November 10th.—He came to the hospital to-day. He is able to walk without the aid of a cane. Not the least motion can be detected in the femur. The knee is flexible.

Case 6.—*Humerus.*—Patient, T. C., soldier, aged 41, entered the hospital April 15th, 1864. He was wounded by a Minié ball in the right humerus at the first assault on Port Hudson, summer of 1863. The bone was broken at about the junction of the middle and upper thirds, and was considerably splintered. According to patient's account, the surgeon sawed off about an inch from each end, and then approximated the ends of the bones by means of splints, but did not wire them. He was then put in an ambulance, carried fifteen miles over a rough country, then in a steamer for some distance, so that it was two days before he arrived at a hospital. The wound soon healed, but the bones did not unite, and have not since.

April 16th.—He was etherized. Professor Bigelow operated. An incision was made over the point of fracture. The ununited ends were forcibly everted. The periosteum was carefully dissected up and reflected, and the denuded ends sawed off. A hole was then drilled through each end of the fragments. A wire was then passed through these holes and twisted. The periosteum was brought together, and the wound closed by sutures. The arm was placed in an outside angular splint.

20th.—The arm has moved from the splint, and is quite out of position, so that the ends of the bones are at a slight angle with each other. The angular splint was removed, and the arm placed on a broad straight splint, with two shorter side splints to keep the fragments in place.

23rd.—The wound is suppurating freely, and the arm is in good position.

May 2nd.—The wound has nearly healed, except at the point where the wires emerge.

June 10th.—Patient walks about the yard, with the arm firmly supported. There is considerable firmness at the point of fracture.

24th.—The arm is stronger. Discharged.

September 17th.—He returned to the hospital to-day with the arm so strong that he can use it for all ordinary purposes. The wire was removed, and the humerus was found to be perfectly firm.

December 16th, 1865.—The arm is perfectly firm, and for some time he has done a great deal of heavy lifting, such as wheeling coal, without favouring the injured arm in the least.

Case 7.—*Humerus.*—Patient, E. S., female, aged 45, entered the hospital Nov. 10th, 1864. She had an ununited fracture of the right humerus, the result of a compound fracture received a year and a half previously. Seven months after the accident there was no union at the point of fracture. A seton was passed between the ununited ends, and allowed to remain for a month. Notwithstanding this and other forms of treatment, no union followed. On entrance, there was a fracture of the humerus in its lower third; the ends of the bone were drawn widely apart by the weight of the forearm, unless held in place by an apparatus which she had worn for the previous seven months. She was a large, corpulent woman, with flabby tissues.

November 19th.—She was etherized this morning, and Professor Bigelow made an incision, three inches long, on the outer and posterior aspect of the arm, just above the external condyle. The ends of the fragments were then turned out, the periosteum was dissected back for about an inch and a-half on the lower fragment, and two inches on the upper. The denuded bone was then sawed off; on the upper fragment by a single stroke of the saw. The bone was much atrophied, softened and degenerated, the holes for the wire being easily made with an awl, and the bony tissue easily cut with a knife. A wire was then passed through the outer sides of the shaft of the bone, and twisted so as to bring the ends nearly but not quite in apposition, lest the tight wire should break the bone. The edges of the wound were brought together with sutures, and the arm placed in an inside angular splint.

Afternoon.—The arm is so unwieldy that it cannot be sufficiently confined in the inside splint. It was therefore laid on a flat right-angled splint.

27th.—Pulse and appetite good. Wound clean, and suppurating healthily.

December 30th.—℞. Calcis phosphat., gr. x., 3 t. d.

January 7th, 1865.—The wire has apparently torn out of the bone. No stiffening at point of fracture.

March 20th.—No union.

April 1st.—Patient was etherized, and an incision made down upon the bone, and the wire was removed. The ends of the fragments were turned out, and found so degenerated, that they could be easily broken with the fingers. Forearm œdematous and tender.

26th.—The arm was to-day amputated, at the patient's desire. The end of the upper fragment was removed.

May 21st.—Stump has nearly closed.

June 17th.—Discharged, well.

CURRENT LITERATURE.

Dr. Edwin Lee has issued as an additional supplement to his work on the "Medical Profession in Great Britain and Ireland," a pamphlet entitled *The State of the Medical Profession further exemplified.* It is well-known that Dr. Lee has for many years devoted considerable attention to this subject, and has extended his observations to the state of the Profession on the Continent. It is not, therefore, needful to enter very fully into his opinions. Suffice it to say that they are put forward with considerable skill, and that in their defence he quotes those of this and many other journals. The first chapter is devoted to the Medical Act and the Medical Council, the shortcomings of which are told without sparing. The second section is a telling critique on the abuse of the licensing power; and the third examines at length the subject of medical schools and clinical instruction. The defects of these having been throughly considered, a chapter is devoted to the evil consequences of the prevailing abuses, and another to the prevalence of extra professional influences. Those who desire to read up this question

afresh should get Dr. Lee's pamphlet, not only for what he says himself, but because the numerous quotations with which his remarks are supplemented, give a clue to the opinions entertained by many others.

There is an Appendix to this pamphlet entitled a "Pendant to the Autobiography of Sir B. Brodie." It is one of the most severe and hostile notices ever penned upon the deceased baronet. We may be excused for entering upon this just now, for although included as an exemplification of some of the evils denounced in the pamphlet, we are more immediately concerned with them, besides which, our own opinions on some of the points touched upon have long ago been expressed.

We have said that Dr. Lee has written fully on the evils that now weigh upon our profession. We are so often called upon to comment upon these, that we must refrain from any quotation respecting them. We are glad to say that our author has however not stopped here. In his concluding remarks he has propounded his scheme for their redress, and it will encroach less on our space to quote it than to criticise its several parts—as moreover, in this part of the journal, we are rather desirous of summing up than commenting upon the opinions of authors, we here give Dr. Lee's conclusions :—

"1. The absence of any legislative supervision.

"2. The regulation of medical affairs being left to a number of corporate bodies and universities having conflicting interests.

"3. Examiners for medical and surgical diplomas in those bodies having a pecuniary interest in the number of candidates who present themselves for examination, and consequently the overcrowding of the profession, and the introduction into it of many imperfectly qualified persons.

"4. The prevalence of favouritism, undue and extra-professional influences, in the election to hospital appointments, and the consequent frequent inefficiency of the teachers in the practical departments of medicine and surgery, and likewise as respects the treatment of hospital patients. Moreover, the great opportunities presented by hospitals for promoting the progress of medical and surgical science are by this means often made but little available for this purpose ; while, by the frequent exclusion of highly-qualified gentlemen from the staff of hospitals, a vast amount of talent by means of which these opportunities might have been made conducive to this object and to the public welfare, has been lost to the country.

"5. The election, without regard to superiority of qualification, of gentlemen who have held hospital appointments to examinerships, and into the Medical Council, as delegates of the various corporate bodies, whose interests alone they have sought to promote.

"6. The separation in education of medicine from surgery ; the too exclusive attention to surgery on the part of a majority of students who in their after career are called upon to practice *medicine*, and the existence of a large proportion of medical practitioners who possess only a surgical diploma.

"7. The absence of a due appreciation of professional and scientific claims, which restricts the number of zealous cultivators of medical science, and not unfrequently occasions the ruin or expatriation of highly-qualified men, whose talents might otherwise have been made available towards adding to the stock of knowledge, and promoting the welfare of the community.

"8. As a consequence of the last-specified and other causes, the frequent adoption of various indirect and unprofessional means of attempting to succeed in practice, by which ill-feeling and jealousies between members of the profession are fostered, the profession itself is lowered in public estimation, and the extension of quackery is favoured.

"The principal requirements to be embodied in a bill for the effectual correction of abuses and for improving the medical organisation of this country appear to me to be the following :—

"1. A suitable representation of the medical profession in Parliament, and an efficient legislative superintendence of medical affairs, such as exists in the other civilised countries of Europe.

"2. The formation of a competent and disinterested Medical Council for regulating the details connected with medical matters, under the supervision of the Secretary for the Home Department, and accountable to Parliament ; and periodical reports of its proceedings to be published. (The Council needs not be wholly composed of medical men, but those forming its most essential part should be well known, irrespectively of their connection with particular institutions, and should be elected by the votes of members of a certain standing in the profession).

"3. The numerous bodies now empowered to grant licences to practise to be superseded by three central licensing boards, one in each of the capitals of the empire ; the licentiates in medicine, surgery, and midwifery who pass the examination at one or other of these boards being authorised to practice in any part of the United Kingdom.

"4. The universities, colleges of medicine and surgery, and Apothecaries' Companies, to be empowered as heretofore to grant degrees and diplomas to licentiates who pass their examinations, and who may wish to practise medicine (as physicians) or surgery separately, or both combined. No medical degree or diploma, however, to be conferred upon any one who has not passed an examination at one of the central boards.

"5. In no case should examiners have a pecuniary interest in the number of candidates presenting themselves for examination ; their compensation should be by a fixed stipend, as it is in other countries.

"6. Among the chief functions of the Medical Council may be specified the supervision of hospitals, both as regards their internal management, and also the competency of the medical officers and lecturers attached to these institutions. Private schools should also be subject to the supervision of the Council, as affording a guarantee of the competency of the teachers.

"7. Due encouragement should be given by the Legislature to the cultivation of medical science by conferring suitable distinctions and recompenses upon such persons who prove themselves entitled thereto.

"8. In the practical department of education means should be adopted for ensuring on the part of students that a greater share of their attention be directed to internal pathology and therapeutics than has heretofore been the case, instead of to surgical pathology and operations.

"(The formation of the central examining boards would greatly tend to achieve this object, as persons could not then practise medicine under a mere surgical diploma)."

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 4, 1867.

LONDON VICTIMISED BY ITS GREAT SEWAGE WORKS.

WHAT will not engineering skill now accomplish? When guided by the light of experience and due observation of the laws of nature, we consider our engineers of the present age capable of effecting truly great and invaluable works; but when the principles which nature acts upon are neglected, then the greatness of the undertaking but adds to the evil inflicted upon the community. We quote the following from a contemporary :—

"A sufferer, in the *Times* of Wednesday, again complains of the nuisance to which we have already referred as periodically occurring in Bel-

gravia. This gentleman states that his house has been flooded three times within the last three months, and has suffered so severely that he has instructed his servants to regularly watch the rise and fall of the barometer, and to prepare accordingly. He complains of the Sewer Commission as being at fault, but beyond trapping the drains what can they do? Water will obey the laws of specific gravity, and if people elect to live below high water mark they must take the consequences. It is certainly to be regretted that the most fashionable quarter in London should be so situated, yet so it is. Nor does the mischief cease where it appears to do. It is, no doubt, sufficiently annoying to have one's house flooded with the most abominable refuse imaginable, but when the flood subsides and the water has passed away, what is left behind? Matters which no care or cleansing can remove; the foundations of the house are sapped, the ground on which it stands is impregnated with sewage, and in every crevice are left behind particles of germinal matter capable, if a proper nidus be found for them, of giving rise to zymotic disease, the intensity of which would be increased ten fold by the gradually debilitating process the inmates have undergone from its presence. Cholera is gradually extending its ravages; if it reach this country, how will it find the inmates of such dwellings prepared?"

Rightly does our contemporary point out the difficulties of dealing with districts occupying low levels, but we would ask, are our engineering staff incapable of dealing with the matter? If the men of the low countries were as helpless, where would their property and their industry, and they themselves be?

In 1857, the London authorities invited tenders of schemes for the main drainage of the metropolis. One hundred and fifty-one plans were sent in, which were revised by a Goverment Commission, and these, with the observations of the Commissioners, were placed at the disposal of the Metropolitan Board of Works. Subsequently the engineer of that highly important body constructed a plan, which he states is his own. We will not stop to claim for those who tendered the plans a greater or a less share of the credit of the great works now existing; but we must assert that at least one plan* insisted upon the necessity of providing for floods. Indeed, the plan we refer to regarded accommodation for surface drainage as of primary importance.

Now, we learn that the present system provides only for a rain-fall of about one quarter of an inch in the twenty-four hours; whereas, one of three inches and a quarter has recently occurred in the metropolis.

Again, the evils of the system, as at present working, does not stop with the frequently recurring floods mentioned by "Sufferer" and other writers. The deposit of silt at out-falls of the main drains is assuming a magnitude which promises shortly to demand attentive consideration.

The subject is too large and too important to be treated of in the short compass allowed in our pages. We learn, however, that Dublin is promised an undertaking resembling the main drainage of London, and tens of thousands are spoken of as the cost. We would warn the inhabitants of the second city in the Empire against any such plan—the evils of which are not to be reckoned at an expenditure of money, whether amounting to millions or to hundreds of thousands—and we must add that all such plans of drainage but intensify the evils inseparable from the lazy, imperfect, unnatural, and most pestiferous custom of polluting our water-courses, as well as our dwellings and the soil of our cities and towns. The present great water system will, if continued, spread debility, sickness and mortality, throughout the land, at the same time that it robs the soil of those elements due to it, and without which it becomes impoverished and exhausted. We must, however, reserve the further consideration of the question on this and on other points until a future occasion.

* Reports of Government Referees, Parl. Papers. Metropolitan Drainage, Session April, August, 1857, *page* 348. *Appendix.*

Notes on Current Topics.

THE LATE PROFESSOR FARADAY.

Even at the ripe age of 73, it seems too early for us to lose the great exponent of physical science, who seemed blest with continual youth. Yet so it is. The lecturer who delighted the youth with his teachings, as much as he astonished the most learned with his profound knowledge, who throughout his career had been connected with the Royal Institution, will no more fill his accustomed place there. Born in a lowly sphere, he has raised himself to the very highest pinnacle of fame by his devotion to experimental and physical science. The pupil and successor of Sir Humphrey Davy, he wore the mantle of his master with dignity, achieved for himself a position which attracted the attention and respect of every class of his fellow men, from the occupants of thrones downward, and lived a life that will serve as an example and an encouragement to many a weary, hard-toiling student in the distant generations. The monument of his memory will remain in every laboratory where love of science inspires the workers. Will not this be more durable than marble?

LAUDANUM AND RHUBARB.

Two children have lately been poisoned through laudanum being sold instead of tincture of rhubarb. The jury find verdicts of accidental death, and accompany them by censure on the negligence which causes these accidents, yet they continue to recur. In those instances where the drugs are sold by the ignorant keepers of little sundry shops or small groceries, the remedy is clear. They ought not to be permitted to sell poisons. But, unfortunately, in one instance last week, this "misadventure" took place in the hands of a regular chemist, accustomed to the duties of dispensing. In consequence of the alphabetical arrangement often adopted, the two bottles containing laudanum

and tincture of rhubarb very frequently stand close together, and their colour is nearly alike. A general practitioner of our acquaintance, whose pupil once nearly made this mistake, always afterwards insisted on the laudanum bottle being kept out of its alphabetical order—at the extreme end of the shelf. We commend the example to all concerned.

THE PUBLIC HEALTH.

THE last return of the Registrar-General shows a decrease in the mortality of London. The deaths are once more less than the estimated number—this time by 65. The decrease is, however, not due to any decline in diarrhœa. There were in the week 1247 deaths registered—the average for the 34th week of the year corrected for increase of population being 1312. Diarrhœa carried off 188 children, and 8 adults. In the last seven weeks the numbers dying from this disease have been 115, 170, 196, 217, 189, 200, and 196 respectively. The deaths of 13 children, and 5 adults, were returned as caused by cholera.

The annual rate of mortality during the week was 21 per 1000, in London. 19 in Edinburgh, and 26 in Dublin ; 23 in Bristol, 27 in Birmingham, 30 in Liverpool, 29 in Manchester, 26 in Salford, 22 in Sheffield, 33 in Leeds, 22 in Hull, 33 in Newcastle-upon-Tyne, and 24 in Glasgow.

The following proportions of the above rates were referred to diarrhœa in the different towns :—In London, 3·3 per 1,000 ; in Sheffield, 4·6 ; in Newcastle, 6·3 ; in Liverpool, 7·0 ; in Birmingham 8·8 ; in Leeds, 9·0 ; and the highest, 10·3 in Manchester and Salford.

We continue to watch with interest these important mortality returns. The lessons they teach our readers must be almost weary of hearing. Yet how supine are our local authorities !

THE DRAINAGE OF MILAN.

MR. GILBERT W. CHILD has published an account of the manner in which the drainage of Milan has been effected. The whole works are in the hands of a company possessing a reservoir outside the city. Instead of sewage pipes the cesspool system is in full operation, and yet, according to Mr. Child's personal experience, the emptying of them, and the removal of their contents to the extra-urban reservoir, is affected without the least smell being perceived. Moreover, the value of the sewage, as manure, is appreciated, and Mr. Child saw, last May, 120 farmer's carts waiting at the works to take it away. That the system is universally applicable no one would suppose, but there can be little doubt that it is preferable to the want of any system at all, and in some places it may prove to be the most suitable. The following is Mr. Child's description of the plan :—

" The house sewage is excluded from the sewers, which serve as far as I understand, merely as channels for rain-water, and passes into cesspools. These are very frequently emptied, and it is in the method employed for emptying them that one of the distinctive features of the system is to be found. The carts used for the purpose are in the form of stout iron barrels placed upon wheels, and each is furnished with an aperture having an air-tight valve, which can be opened or closed at pleasure. The barrels are exhausted of air by an air-pump at the works of the company, and are then sent out on their rounds. When a cesspool is to be emptied a hose is employed. One end is introduced into the cesspool, the other is adjusted to the aperture of the barrel, the valve is withdrawn, and the whole contents of the cesspool are instantly sucked up into the barrel This operation is so neatly performed that it gives rise to no disagreeable odour, and so careful are the company's servants that I am assured their habit is, as soon as a cesspool s emptied and the aperture of the barrel closed, to plunge the end of the hose into a bucket of water, and by again opening the orifice of the barrel to suck up the water, and thus purify the hose before proceeding to another house.

" I can testify from personal observation that these carts constantly pass too and fro in the streets of Milan without giving any unpleasant intimation either to sight or smell, of the nature of their contents ; and I was informed by an English resident that his cespool was emptied in the day-time and immediately under his windows without the slightest offence.

" The sewage matter, collected as I have described, is conveyed to the works of the company, and there stored in a large covered tank. Thence it is taken away by the farmers, who buy it as they want it, and any surplus which may remain is made into a kind of poudrette and also sold as a manure."

ST. ANDREWS GRADUATES' ASSOCIATION.

THE Council of this Society met on Tuesday the 27th. The members of the Association were reported to have been increased by the addition of thirty-seven new graduates. Among those who have been elected honorary members, are His Grace the Duke of Argyll'; Professor Lyon Playfair ; the Professors of Medicine, Natural History and Divinity of the University ; Dr. Day, of Torquay ; the Senior Professor of Medicine, and others.

It was arranged that the proposed deputation to the Chancellor of the Exchequer and the Lord Advocate, should be deferred until the new Bill shall be under consideration. In the meantime, each graduate is to be earnestly solicited to urge the justice of the claim for the franchise on every M.P. with whom he may come in contact.

At the next meeting the Council will take into consideration the propriety of admitting future members by ballot.

The arrangements for the general session to be held December 2 and 3, were then considered, and papers were announced by Professor Playfair, Drs. Richardson, Edwards Crisp, Day, Proctor, Powell, Bishop, Williams, Sedgwick, and others. This Association is now completely established, and we cannot doubt that it will exercise large influence, not only over its members, but on the profession as a whole. The absurd nonsense that has been talked about the St. Andrew's degree was completely refuted by the statements put forth by the council, and which we have already epitomised. The value of the M.D. St. Andrew's is now universally recognized, and it is but just that it should carry a vote for the University member.

POISONOUS CIDER.

THE danger by which we are continually surrounded from the accidental impregnation of food or drink with poison was shown in an inquest held last Wednesday in Herefordshire. The deceased, who had drunk large quantities of cider, died with all the symptoms of lead poisoning. His companions, who had drunk some of the same cider, had also suffered severely, though not fatally. On analysis one grain of lead per gallon was detected in the cider. The jury and medical men visited the mill where the cider was made last autumn, and found those parts of the apparatus which were composed of lead very much corroded. The jury exonerated the person who made the cider, but very justly recommended that the whole of the remaining stock should be tested, and whatever was found bad thrown away. The case altogether points to a danger about which too little is thought. We use lead in so many forms, and it is so apt to contaminate all fluids with which it comes in contact, that the only wonder is there are not more deaths from lead poisoning.

THE WONDERFUL ZOUAVE AND HIS CURES

THE miraculous cure of a French marshall. When was the time that Paris had not some miracle with which to delight her visitors or some strange story with which to set her numerous gossips by the ears? Her latest sensation is a Zouave named Jacob, who blows the trombone when on duty, and when off, effects cures in a manner to eclipse even the mesmerists. What will the faculty do if people are all to be cured by a Zouave? What will become of the priests and the church if it sets abroad that Jacob can excell them all? The following quotation from a contemporary will amuse, if it do not instruct our readers. The remark about the medical papers is unique. What will our *confrères* think of it?

"Marshal Forey has been for two months at his country house, suffering from paralysis of the left side; and the other day, according to a Paris paper, he sent two aides-de-camp for Jacob, who obstinately refused, however, to accompany them lest it should bring him within grasp of the law regulating the healing art. At last Marshal Canrobert got him to accompany him to Bourg la Reine, where Marshal Forey lay. Jacob had the sick man, whose servants brought him downstairs on a litter, carried to the bottom of the garden, and remained there alone with him. An hour later, the narrative proceeds,—

'Two men were seen walking towards the house, one of them leaning on his companion's shoulder with one hand, while with the other he held a stick on which he supported himself a little. This man who, an hour before, could not rise from the litter in which he had been brought into the garden was Marshal Forey. The other was his doctor, his saviour, Jacob the Zouave. When they reached the foot of the steps leading up to the house the bystanders, already astonished at the change they witnessed, beheld Marshal Forey suddenly stop, throw his arms round Jacob, and warmly embrace him, and then, like Sixtus V. at the Vatican, he tossed away his cane and ascended the steps as alertly as a schoolboy.'

"The medical papers turn the Zouave into ridicule. If the above story and others equally circumstantial which have appeared in the papers be fabrications, they will surely meet contradiction from the persons named in them."

The most promising feature of this Zouave healer's career is, that he never accepts money for his services. He believes himself possessed of a sort of occult (he thinks magnetic) influence, which he consistently refuses to use as a means of enriching himself. He is not above forty years of age, and about half his life-time has been passed in the army. He was in the Crimea, but we did not then hear of his healing powers. He is further said to be very studious. The *Petite Presse* informs us that:—

"Jacob is at this moment in garrison with his regiment at Versailles. In the morning, from twelve to two he receives, in a room which has been lent him at a cafe opposite the barracks, the sufferers who come from Versailles and the neighbourhood to seek his assistance. At two he takes the train for Paris, and arrives at three in the Rue de la Roquette. The railway permits him to travel gratuitously, his colonel dispenses him from nearly all his duties. From three to six Jacob receives the infirm of Paris. At six he dines with his father, and at nine he goes to the Faubourg St. Germain, where he has a bedroom and where he passes the night. In the morning he starts for Versailles by the first train, arrives for roll-call, plays the trombone till ten, breakfasts, gives a sitting, and returns to Paris to treat his paralytics."

Last week the receptions described by our contemporary were interrupted by a notice from the district authorities, who have forbidden their continuance, on account of the annoyance to the neighbourhood caused by the large crowds of people thus drawn together.

A PROTEST AGAINST A COLLEAGUE.

SOME weeks since a medical contemporary devoted a considerable portion of its space to a republication *verbatim et literatim*, of certain printed directions issued by Dr. Dobell, in connection with the Royal Hospital for Diseases of the Chest, and bearing in large letters the name of that gentleman. Without doubt, practices of such doubtful propriety and such contravention of good taste, are worthy of the condemation which publicity must secure for them, and medical men who respect their professional rank are right to separate themselves from participation in such transactions. The following letter, addressed by the colleagues of Dr. Dobell, has been forwarded to us. It would add much to the force of the excommunication pronounced against Dr. Dobell, if we were informed how long the objectionable practices have existed, for if the disclaimer of these gentlemen was only elicited by newspaper strictures, it is worth very little:—

"To the Chairman of Council, Council, and Governors of the Royal Hospital for Diseases of the Chest, City Road. Gentlemen—We earnestly regret to express to you our united feeling that existing circumstances render it impossible for us to continue in the discharge of our duties as Medical Officers of the Royal Hospital for Diseases of the Chest. The anomalous position of Dr. Dobell as Honorary Secretary as well as Physician, his assumption of authority and his spirit of interference, would alone render our continuance in office incompatible with independence of action and self-respect. But his practice of issuing diet bills bearing his own name and that of the Hospital, one of which recommends a medical preparation originated by him (Pancreatic Emulsion), and the dispensing of the same medical preparation from the Hospital in pots bearing his name on the label, are still more decisively objectionable. We do not wish to express an opinion whether such practise is or is not in accordance with the intentions and principles of a public charity, or to question the propriety of applying its funds to any such purpose: it is enough for us to know that the practice is of a nature to call forth the most severe condemnation from those Members of our profession whose good-will and esteem we most value. Feeling therefore satisfied that we cannot continue to work in harmony with Dr. Dobell, and assured of what is expected from us by the profession, we find it to be the most direct and honourable course to place our resignation in your hands. We cannot, however, take a step which may dissever us from an Institution with which our names have been honourably connected during the most active years of our professional life without offering to you, the Governors and Council, our sincere respects and our warmest thanks for the long confidence you have reposed in us. That you may be put to the least possible inconvenience, we shall have pleasure in holding office until the appointment of our successors, if agreeable to you. We have the honour to remain, Gentlemen, your most obedient servants, Benjamin W. Richardson, M.D., F.R.S., 12, Hinde-street, W.; Arthur Leared, M.D., M.R.I.A., 12, Old Burlington-street, W.; Joshiah T. Powell, M.D., M.R.C.S., 347, City Road, E.C. London, August 22nd, 1867."

SUPERANNUATION OF WORKHOUSE MEDICAL OFFICERS.

WE rejoice to observe that the Board of Guardians of the Mullingar Union have established a precedent which has received the sanction of the Poor-law Commissioners, and having obtained this official approval, is of the utmost value to Poor-law Medical Officers.

At a meeting of the Board of Guardians on the 20th of June, a letter of resignation, in consequence of severe permanent illness, was read from Dr. Thomas Curran, who had been the zealous and efficient medical officer of the workhouse for upwards of twenty years, in which he reminded the board that he devoted the whole of his time to the performance of his official duties; that no fault had ever been found with him by the commissioners, their inspectors, the guardians, or even by the paupers, and hoping the board would consider him entitled to superannuation under the recent Act of Parliament. The board orderep

his application to be taken into consideration on the 25th of July, on which day, at a board attended by twenty-four guardians, viz., eleven *ex-officio* and thirteen elected, it was proposed by the chairman, and unanimously carried—"That Dr. Curran, late medical officer of the workhouse, having devoted the whole of his time to the performance of his official duties for more than twenty years, and now being obliged to resign from ill-health, this board hereby vote him two-thirds of his salary in accordance with the act 28th Vic., chap. 26, and the sanction of the Poor-law Commissioners thereto is earnestly requested." At a meeting of the board on the 8th August, a sealed order was received from the Poor-law Commissioners sanctioning the vote of the board.

We regard this as the most important decision which of late years has been arrived at in respect of Poor-law Medical Officers, because it affords Boards of Guardians the official proof which they have hitherto required to justify them in superannuating their aged and well-tried Medical Officers. It is at least an important step towards a voluntary retirement of Dispensary and Workhouse Officers who may feel themselves unable to continue their services, when the legality of the grant of a retiring allowance is officially established.

THE GUINEA WORM AND THE ABYSSINIA CAMPAIGN.

A correspondent of the *Times* of last Saturday, subjects the suggestions of our contemporary respecting the Guinea worm to the following criticism :—

"The *Lancet* states that 'while 10 per 1000 of the troops in Bombay suffered from dracunculus, as many as 246 admissions per 1000 from this complaint arose among the soldiers serving on the Gold Coast.'

"The Guinea worm does not molest Europeans. It has certainly been known to do so, but the Europeans thus punished have been always remarkable for their abhorrence of water. Europeans who are cleanly in their persons, who use a bath, do not, as a rule, have any acquaintance with the Guinea worm.

"The troops quartered on the Gold Coast were, until lately, Fantees, or natives of Cape Coast ; and they formed what was known at the Horse Guards as the Gold Coast Artillery Corps. About four years ago the corps was disbanded for mutiny. That fact, then, will account for the disproportion of admissions into hospital from Guinea worm between the soldiers at Bombay and the soldiers on the Gold Coast, the Bombay soldiers being mostly Europeans and the Gold Coast soldiers being entirely Africans.

"Again, the *Lancet* seems to think that the Guinea worm confines itself to the 'bare feet.' It attacks all parts of the surface of the body, and generally works its way into those parts which are exquisitely tender. The lips, ears, and eyelids even are not free from it. I need not hardly tell you that the presence of the Guinea worm soon sets up violent inflammation ; and, as it usually selects the flesh of the joints for its cyst, the patient rarely gets off with less than a stiff ankle or knee. Nine times out of ten, the stiffness is permanent.

"The mode by which the Guinea worm is extracted is very tedious and very curious ; and Captain Wilkes, a clever and scientific man, paid me a visit at Cape Coast immediately before his assault on the Trent, for the sole purpose, as he assured me, of witnessing the treatment and also the extraction of one. Fortunately he was gratified.

"I would, with great deference, suggest that the Director-General should lay his hands on as many medical officers who have served on the Gold Coast as he well can ; and it is almost a pity that an able officer, full of experience and of gallantry, like Staff-Surgeon Charles O'Callaghan, should have left for Cape Coast by the mail steamer which only started from Liverpool on the 24th inst. Might he not have been detained?"

CHOLERA THEORIES.

V.

(Continued from page 192.)

A WORK which attempts to explain the mysterious natur of cholera, which has attracted very general attention, and which has had some considerable influence on treatment, is the one by Dr. George Johnson ;* and the central idea of which is that a blood-poison exerts a special irritative action on the coats of the pulmonary artery, exciting spasm of its minute branches, so that, "during the state of collapse, the passage of blood through the lungs, from the right to the left side of the heart, is, in a greater or less degree, impeded." By means of this one alleged "central fact," Dr. Johnson attempts to explain the leading phenomena of cholera. Having carefully examined Dr. Johnson's theory, we are obliged to acknowledge that it seems a failure in respect alike to what it attempts to explain, what it ignores, and what, as a logical deduction, it prescribes, by way of treatment, viz., castor oil, for the purpose of increasing those eliminative processes by which life is generally destroyed.

Few theories have occasioned more controversy than this of Dr. Johnson's, which has received a very large share of attention, and has occupied many pages of the journals. In spite of the most strenuous opposition from a very large proportion of the reading metropolitan physicians, Dr. Johnson has, with considerable ability and no small confidence, urged his views upon the profession in season and out of season. We have on several occasions dwelt upon it at sufficient length, and it has been discussed in several of the departments of our journal by several different writers. Moreover, in a previous number of this very series on "Cholera Theories," we have given at length what we consider the most able criticism upon it that has yet appeared, viz., that which Dr. Chapman put forth in his work on "Cholera and Diarrhœa." We think, therefore, unless some of our readers have some new arguments to offer upon it, we may fairly pass on to other views that have not received so much attention on our part.

Dr. Sedgwick refers the failure of the circulation in cholera to a central arrest of the sympathetic nervous system. His extensive elaboration of the doctrine, that the primary seat of the disease is the stomach, and that through the medium of this organ is induced a disorder of the sympathetic nervous system," consisting in diminution or arrest of its functions is a signal example of the application of considerable intellectual power and extensive knowledge in the development and advocacy of a theory which we hold to be fundamentally false. Being informed by no central truth, the work is devoid of logical cohesion; and the laborious effort evident throughout to sustain a theory irreconcilable with the facts of cholera, is like twisting a rope of sand, and the only practical result which Dr. Sedgwick arrives at is to renew the often tried, and as often abandoned practice of bleeding during collapse.

Dr. Sansom, who has also tried to solve the problem which has so long baffled the medical intellect, assumes the presence of a poison which, coming in contact with the alimentary canal, acts as "a primary irritant," and thus causes the immediate phenomena of vomiting and purging. Moreover, the same poison becoming absorbed also acts as an irritant of the sympathetic nerve, the force and activity of which (according to Dr. Sansom, and contrary to the assertion of Dr. Sedgwick) is therefore increased ; and its exalted energetic action produces a general contraction of the blood-vessels throughout the body. Thus, the hypothetical poison "causes the combined phenomena of true cholera, diarrhœa, and collapse." Dr. Sansom, faithful to the commonly received doctrine of the existence of cholera "germs," recommends a medicine, calculated, *as he thinks*, to destroy these germs—viz., sulphite of soda.

Here we beg to remind him, that had he followed the most recent investigations on this subject he would pro-

* Notes on Cholera.

bably have accepted the conclusion, that the sulphites would destroy the vitality of a patient's blood more readily than germs such as those, to the presence of which he ascribes the phenomena of cholera. This is a point which should, we think, scarcely have been ignored by the proposer of the remedy in question.

By becoming "an irritant" of the sympathetic nerve the poison, according to Dr. Sansom, increases its force and activity, and so causes it to effect the remarkable group of symptoms constituting choleraic collapse. It is easy to assume the existence of a poison and then to affirm that acting as a primary irritant it causes vomiting and purging. But in all the numerous cases in which substances taken internally are known to act as "primary irritants," the peculiar discharges characteristic of cholera are never produced. Is not, therefore, this doctrine, that a hypothetical poison comes in contact with the alimentary canal, and there acting as a primary irritant, produces, in combination with the action of the sympathetic, the rice-water evacuations which no known irritants do produce, a pure assumption. If not, it is at least, incumbent on Dr. Sansom to demonstrate each link in the physiological chain of causes by which the phenomena in question are induced. The doctrine urged by Dr. Sansom concerning the state of the sympathetic may be the true one, but even then there is no necessity whatever for the assumption that that state is prodnced by a blood-poison. Moreover, Dr Sansom did not originate this theory concerning the state of the sympathetic. Although he makes no acknowledgment of the fact, the doctrine in question was first announced by Dr. John Chapman in 1864, and more thoroughly expounded in 1865, since which that author has not ceased to enforce it. It seems almost incredible that Dr. Sansom can be ignorant of Dr. Chapman's writings, especially as he confesses his obligations to Dr. George Johnson's, who has discussed in his "Notes on Cholera" Dr. Chapman's hypothesis. Perhaps Dr. Sansom thinks he has sufficiently acknowledged his indebtedness to Dr. Chapman by his statement in his preface, that he "has learned much from the medical papers." Others will probably think otherwise.

SANITARY STATE OF THE INDIAN ARMY.

We have been so long accustomed to hear of the unhealthy influence of the Indian climate, that we almost look upon it as a calamity to which British residents there are of necessity liable. The troops sent out from this country have especially suffered, being, from the nature of their employment, exposed in no ordinary degree to the different causes and conditions of disease in the localities where they are stationed. It is satisfactory, therefore, to know that the work of sanitary reform has been begun, and is progressing there as well as here. The Royal Commission appointed to inquire into the state of the army in India, has exerted a beneficial influence, the effect of which is that a Sanitary Commission has been appointed at each of the Presidencies, which, at no distant date may have a favourable bearing upon the general health of the population; while, with regard to the troops, immediate efforts are being made to secure that object. It is proposed, for instance, to remove them as much as practicable from stations which are notoriously unhealthy, to prepare hospitals for the proper treatment of the sick, to extend the hill sanitaria, to ventilate and cool the barracks, to purify the water, to introduce the "dry-earth system," and other means of warding off disease and arresting its progress. If these measures are legitimately carried out, it is considered that eventually a death-rate of 20 per 1000 "may be taken as the possible mortality."

The Bengal Commission have published their second annual report. It gives us returns of the diseases and mortality for 1865, which prevailed among the men, both British and natives, and also among the occupants of gaols in the Presidency. The British troops in that year numbered, on the average, 37,210. The proportion of daily sick throughout the year was 60 per 1000, which is less than in any of the preceding twelve years. The average death-rate was 24·67 per 1000. It ranged as follows:—In 17 military stations it was less than 20 per 1000; in 15 it was between 20 and 30; in 6 between 30 and 40; and in 6 others it was as high as 41 to 57 per 1000. There is, too, a difference observable in the death-rate of different regiments at the same stations, which the Commission account for, not from any variation in the healthfulness of those stations, but from the fact that the men, in some instances, have been previously exposed to malaria of some kind, and carry the effects with them, which remain after the cause has ceased to operate. As far, also, as it has yet been ascertained, the mortality is greater in proportion to the heat which prevails. Thus, at Calcutta, the mean temperature in the shade has been found each day to be 79·4°, and the deaths there were 14 per 1000. In Agra it was 91·9°, and the deaths were 22 per 1000, while in Benares it averaged 92·3°, and the mortality reached 41 per 1000.

Cholera produced 116 deaths among the European troops, which is less than in any year, with the exception of 1864, since 1858. The native constitution seems better able to withstand the attacks of this disease than the European, for though it was more prevalent among them it was far less fatal, the numbers being 49·7 per cent. of natives, and 72·5 per cent. of Europeans.

Small-pox has been slightly on the increase since 1862. The mortality reached 14·28 per cent. of the cases among Europeans, and 13·04 among natives. It appears from observations by Dr. Bryden that this disease attains its maximum in April, receding regularly from that time till in August and September it totally disappears.

Europeans have suffered much less from fever than the natives, the number of deaths respectively being 3·71 per 1000 of the former, and 4·38 per 1000 of the latter.

Dysentry and diarrhœa produced a death-rate of 2·87 per 1000, though these diseases, except in 1864, have become less prevalent each year since 1859, when the proportion was 12·6 per 1000.

Of late years there has been very little difference in the extent and effects of hepatic disease, the only fact worthy of remark is the large proportion of deaths from this disease among Europeans compared with native soldiers, the proportion being respectively 3·49 and ·28 per 1000. Apoplexy was more prevalent in 1865 than in any year since 1859. Delirium tremens, and venereal disease, have presented fewer cases, those of the latter were 227 per 1000 in 1865, whereas they amounted to 359 in 1859.

On the whole there is every reason to believe that the endeavours of the Royal Commission are working favourably, though gradually, on the health both of the troops and the population generally, and that we may at length find the condition of our soldiers in India to be as satisfactory as in England itself.

Foreign Medical Literature.

ON AMAUROSIS FROM THE ABUSE OF TOBACCO.

By P. THILESEN.

TRANSLATED FROM THE NORSK MAGAZIN FOR LÆGEVIDENSKABEN, XXI. BIND, III. HEFTE, 1867, P. 139.

By WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY, AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

Mackenzie[1] has long ago, without any particular attention having been paid to his statement, pointed out the fact

1 Traité des maladies des yeux par Mackenzie, traduit par Testelin et Warlomont, Tome ii., p. 830.

that the smoking of tobacco, continued for years, may produce amaurotic conditions of different degrees, which, obstinately resisting all treatment, sometimes cease with comparative rapidity when the patients leave off smoking. In Germany, where observations in this direction can be most easily made, on account of the enormous consumption of tobacco, exceeding that of almost any other country, writers seem unwilling to believe in any such effect of the plant. According to Arlt,[1] Beer mentions the occurrence of amaurosis after the use of tobacco, but he seems to regard the increased secretion and expectoration of saliva as the proper cause of the amaurosis. He mentions, also, an example of weakness of vision in a woman who used two ounces of snuff daily. Consequently, in this instance, the loss of saliva could not be the exciting cause. According to Arlt, sufficiently accurate observations as to the relation of tobacco to amaurosis are wanting. He, himself, seems to doubt the possibility of any such effect of the drug. I am not acquainted with von Graefe's opinions upon the subject. In 1859 he let fall, in the course of his lectures, some expressions, from which it would seem that we might infer that he did believe therein ; whether he has since altered his views or not, I am not aware. In his *Archiv für Ophthalmologie*, nothing appears upon the subject from either himself or others. On the other hand, there is reported in it a case of amaurosis after the use of quinia. Professor Donders, in a letter, respecting a patient sent to him by me, warns me against permitting the patient, who was by no means a great smoker, to use the ordinary quantity of tobacco, and wished to have his consumption limited to two cigars in the afternoon. Judging from this, Donders does not look upon Tobacco as altogether harmless. I understand that in 1862 a short paper, by Sichel, appeared in the *Union médicale* upon this subject. His essay is known to me only from a later article by the writer in the *Annales d'oculistique* for April 1865. In this, his last work, which I shall hereafter have occasion to mention more particularly, I find it stated that Wordsworth, in the *Lancet* for August 1863, has reported some undoubted cases of amaurosis from tobacco, as Hutchinson has done in the same journal for the following November.

At the time I became acquainted with Sichel's article on tobacco-amaurosis, I had under treatment a case of weakness of vision, for which I could find no explanation. Tobacco I had not thought of, and, therefore, I did not question him as to his habits with respect to it. I had then had the case under treatment for about a year without having been able to say that any improvement had taken place. I now examined him with reference to his use of tobacco, and it appeared to be such that we could, without any difficulty, refer his symptoms to it. I shall briefly relate his case—

N. N., a tailor, ætat. 35, of slender figure, and of an unhealthy, sallow complexion, states that having previously had remarkably good sight, he observed, rather more than a month ago, that his power of vision began to diminish, first in the left eye, and a week or a fortnight later in the right ; there had been no pain in or around the eyes, or in the head. In all other respects he was perfectly well. When I first saw him, he could read only such large print as No. 11 of Jæger's test-types. The characters were, however, not so black and sharply defined as they had previously been, and they had to be held much nearer the eye than formerly. Spectacles brought no improvement. As it seemed, the weakness of sight was distributed uniformly through the entire field of vision ; I could discover no defects in the same. Both eyes were equally affected. In the fundus of the eye nothing morbid could be discovered in either the choroid, the retina, or optic disk.

All his other functions appear to be in good order. The urine is normal. As a child he was never delicate, nor had he subsequently any serious illness, he never suffered from syphilis, many years ago he had gonorrhœa, which gave way after six weeks' treatment, leaving no ill consequences behind it. He has been many years married, has two healthy children, and has had no others. His residence is rather gloomy, but is not more unhealthy than the majority of those of most others of his position ; he says he is regular in his mode of life, and denies that he uses spirits or beer except very rarely. He has certainly latterly worked hard, often at night by artificial light, and to this he attributes his illness. This is, however, nothing unusual with him, he has ordinarily worked as much, or more, before without inconvenience. Besides, if hard work and strong gas-light had been the cause, these would rather have produced a retinal affection than any central amaurosis, which the present attack bears the stamp of ; and although at first little might have been discoverable with the ophthalmoscope, notwithstanding that the first changes in the circulation might be supposed to be so slight, that they might have escaped observation in the long time which has elapsed since the commencement of the disease, some would, in the ordinary course, have become demonstrable.

The occurrence of the affection almost simultaneously and equally in both eyes, the field of vision being impaired to an unlimited or equal extent, the impossibility of discovering anything morbid in the fundus of the eye on which to base a diagnosis, made me have no doubt that the affection was of central origin, and that this central cause was very definitely localised in the very origins of the optic nerves, as nothing morbid was demonstrable, which could indicate the presence of a cerebral affection. A slightly antiphlogistic treatment was adopted, the patient got sublimate, had Heurteloup's cupping glasses applied periodically to the temples, as well as derivants, whether as simple blisters, flying blisters, or later as a seton in the neck. He subsequently got quinia, with iodide of potassium, subcutaneous injections of strychnia in the temple and around the eye, &c. At first, during the treatment, the weakness of vision steadily increased. In the month of January, 1866 (he came under my care in the middle of October, 1865), that is, about four months after the commencement of his illness, the amaurotic condition had attained its height. He could only catch a glimpse of persons, like shadows, across the yard, which was scarcely more than twenty feet wide. He was not able to distinguish any of Jæger's test-types, not even the largest ; the entire field of vision was, moreover, equally affected : there were no defects in the same. Nothing morbid was discoverable on ophthalmoscopical examination. We might, perhaps, if the cause was central, after the lapse of so long a time, have expected signs of incipient atrophy of the optic nerve ; but nothing of the kind was demonstrable, which I interpreted as a good omen. He continued under treatment until towards the close of spring, when I sent him for a time to the country to improve his strength. During his stay in the country he stopped all medicine, retaining only the seton in his neck. On his return to town he certainly looked better, but on his sight the change had had no influence whatever. The amaurosis was quite the same, nor was anything demonstrable in the fundus of the eye. At this time, as nearly as possible a year after the commencement of his illness, I happened to see Sichel's article upon tobacco, as a cause of such a condition. I now questioned him with reference to his consumption of tobacco, and it appeared that for a series of years he had been accustomed to smoke a large quantity of strong tobacco, ordinary roll tobacco, of which he commonly used two or three skillings[1] worth in two days, which quantity, on account of its strength, corresponds to a considerable amount of ordinary tobacco. He denied that he spat much while smoking. He was now ordered to give up smoking, and, about a month later (he had during this period for a short time used nitro-hydrochloric acid, and had subsequently recurred to the use of strychnia), he began to observe a marked and decided improvement, which has now, after the further lapse of three months, advanced so far that from my window he can read the large letters in a placard at the opposite corner (forty or fifty feet distant), and he can, although with difficulty, spell through No. 1 of Jæger's test-types. More-

1 Arlt, Lehrbuch der Ophthalmologi, 3 B., 1 Hälfte, p. 174.

1 48 Skillings—1s. 8d.

over, the test is now held at more than double the former distance from the eye, about twelve inches. As he is hypermetropic, any shorter distance is now extremely inconvenient to him. Since the improvement commenced it has progressed with enormous rapidity. Latterly he has used only strychnia and quinia. With such progress in so short a time, I cannot doubt that he will completely recover his sight.

From the foregoing, it seems to me that there can be little doubt that the amaurosis was, in this case, due to the patient's abuse of tobacco, and that the improvement which took place cannot reasonably be attributed exclusively to the remedies again had recourse to, and which he had previously used without advantage. Like the increasing number of well-observed cases of nervous affections, of even very serious nature, which have of late years been decidedly referred to the abuse of tobacco, there seems to be nothing unreasonable in placing such obscure cases of central amaurosis also in connexion with the same.

According to Sichel, it is not tobacco employed only in the form of smoke which has this effect, but also in that of snuff, in which, as I have said, Beer also seems to agree. Twenty-eight years experience, he says, has brought me to consider amaurosis to be as frequently the result of the abuse of tobacco as of the constant use of spirits. I have, he says, further, arrived at the conviction, that few men will be able, through a long series of years, daily to consume twenty grammes (two-thirds of an ounce) of tobacco, without at last suffering in their sight and memory. This statement is, perhaps, too sweeping. Much will depend upon the strength of the tobacco. I readily admit that the above may hold good with respect to the roll variety. The external circumstances and relations of the individual must also be taken largely into account, how and when the tobacco is used, whether in the house or in the open air, predisposition, &c. Sichel asserts that he has not seen any case where the injurious effect was chargeable to idiosyncrasy, to the patient's want of practice, to his habit of swallowing the smoke, or of spitting copiously. In none had any dyspeptic or marastic state been previously developed. The individuals on whom Sichel has made his observations have generally been practised tobacco-smokers—strong, powerful people, who had never experienced any inconvenience from the habit until their sight began to suffer from it.

Sichel considers the affection also as being of central origin, a localised affection of more or less importance in the parts of the cerebrum whence the optic nerves arise. He has scarcely ever seen these amauroses combined with congestive symptoms of any importance ; with the ophthalmoscope he has in general found nothing, except occasionally in cases of long standing, an incipient, tardy atrophy of the disk, or some signs of mechanical hyperæmia of the retina, large tortuous retinal veins. His prognosis is in general very good, when the cases are not too old. It is evident that where, under such circumstances, atrophy of the optic nerve has been to any degree developed, there is little to hope.

Sometimes the cases long resist all treatment, sometimes they pass with comparative rapidity into recovery or improvement (that is, after five or six weeks). Where there is not a well marked state of congestion, he advises caution in the use of free evacuations of blood (local as well as general). In the commencement, gentle antiphlogosis, the steady use of evacuants, subsequently, flying blisters to the forehead and temple, and, finally, a more stimulating treatment : strychnia, phosphorus, arnica, and externally exciting applications to the forehead and temple.

He moreover remarks that the use of tobacco and of spirits often go together, and that then these two combine to produce the effect. That spirits, constantly used, may produce amaurosis, is indeed a more recognized fact. I have of late years had many cases of amaurosis from this cause under treatment, and where the patients have had strength of mind enough to refrain from the use of spirits, the result of the treatment has in general been favourable; but, unfortunately, they often want this quality, and for this reason the prognosis should perhaps be more unfavourable in this kind of amaurosis than in that which owes its origin to the abuse of tobacco.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR AUGUST, 1867.

1 Companies.	2 Date and Place of Collection.	3 Total solid impurity in 100,000 parts.	4 Organic Carbon.	5 Nitrogen as Nitrates and Nitrites.	6 Ammonia.	7 Total Combined Nitrogen.	8 Previous Sewage Contamination (Estimated.)	9 Total Hardness.
THAMES.								
Chelsea ...	AUG. 1ST. Cab-rank, Horse Guards.	25·65	·274	·217	·002	·226	1275	18·14
W. Middlesex ...	AUG. 1ST. Cab-rank, Portland-road.	28·60	·239	·166	·001	·173	745	18·71
Southwark and Vauxhall ...	AUG. 1ST. Barclay's Brewery.	25·30	·228	·145	·001	·155	565	18·42
G. Junction ...	AUG. 2ND. Cab-rank, Woodstock-street.	25·24	·230	·136	·001	·142	435	18·09
Lambeth ...	AUG. 1ST. Cab-rank, Westminster-road.	26·24	·312	·199	·002	·209	1105	18·28
OTHER SOURCES.								
New River ...	AUG. 1ST. Cab-rank, Tottenham-ct.-road	23·50	·124	·160	·001	·165	665	17·28
E. London ...	AUG. 1ST. Palmer's Lamp-black Works, Old Ford.	23·30	·133	·054	·001	·059	0	18·42
Kent ...	AUG. 2ND. Deptford Railway Station.	40·80	·088	·339	·002	·348	2495	27·05
Loch Katrine ...	FEBRUARY. Glasgow.	3·28	·256	·031	·002	·041	0	0·3

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, when submitted to the same analytical processes. The numbers in columns 3, 4, 5, 6, 7, 8, and 9, all relate to 100,000 parts of the waters. The table is to be read thus: 100,000 lbs. of Chelsea water collected on 1st August at the Horse Guards cab-rank contained 25·65 lbs. of solid impurity ; the organic matter constituting a portion of this impurity contained ·274 lb. of carbon. This solid impurity also contained ·217 lb. of nitrogen in the form of nitrates and nitrites, besides ·002 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·226 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 1275 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames or its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 18·14 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

All the waters were clear and transparent when drawn from the companies' mains except those delivered by the Southwark and Kent Companies. The constant turbidity of the Southwark Company's water indicates some grave defect in their process of filtration. The Kent Company's water had a slightly milky appearance, and was filled with light-brown floating particles.

ROYAL COLLEGE OF CHEMISTRY,
London, Aug. 27th, 1867.

Correspondence.

DR. LYONS ON ACUPRESSURE AND THE "PIN-TOURNIQUET."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The following simple mode of demonstrating the effects of acupressure in arresting the current flowing through an elastic tube may be worthy the attention of your readers. It has possibly occurred already to the minds of many interested in this novel and valuable surgical discovery which we owe to the fertile imagination of Sir James Simpson. I have not, however, seen any account in print of an equally facile demonstration of this marvellously simple operation. The plan I adopt admits of ready exhibition to a class, and affords abundant facility for the practice of the various methods of pressing the needle, with an immediate demonstration of the desired result—viz., the arrest of the current. All practice on the dead human subject fails in this and other very important particulars. I regret very much that this experiment did not occur to me prior to the reading of Professor Pirrie's very admirable paper on the subject of acupressure, and the important discussion which followed it at the recent meeting of the British Medical Association in Dublin, when many gentlemen very candidly admitted the difficulties they laboured under with regard to the exact details of manipulation in an operation so very simple in practice, yet not free from obscurity, however lucidly described in print or *vivâ voce*. My procedure is as follows:—

Take a bit of vulcanised india-rubber tubing of about one-eighth inch bore, and from twelve to eighteen inches in length. Lay it lengthways upon any cylindrical body two or three inches in diameter; a cylindrical match-box, a little drum made of card-board, or piece of wood or other simple contrivance will answer perfectly well. Next wrap a band of chamois leather, about two inches in width, around the cylinder, thereby fixing the india-rubber tube on the outside of the cylinder, but under cover of the chamois, which may be pined, sewed, glued, or otherwise simply fastened. Such a moderate degree of pressure is to be employed in passing on the chamois leather wrapper as will suffice to keep the india-rubber tube steady without exercising any undue compression of it.

The tube will now sufficiently closely represent an arterial vessel in the human subject of about the calibre of the brachial, while the chamois leather will do duty for the inverting skin and tissues.

To facilitate the further steps of the experiment a pin or acupressure needle may now be passed through the chamois leather at any point over the track of the extemporised india-rubber artery. Any one of the various modes of passing the needle may be selected at will, but the simplest, and one that is certainly as fully efficacious as any other, is that in which the needle is passed through a fold of integumental chamois *over* the vessel, quite through to its own head.

To obtain a current the experimenter now dips one of the free ends of the tube into a tumbler of water, and applying his lips to the other end with a momentary action of sucking, converts the tube into a syphon, and the water as it runs from the free end of the tube may be received into a plate, saucer, or other vessel, taking care to keep the latter or receiving vessel below the level of the water in the tumbler.

The cylinder on which the centre of the India-rubber tube is bound by the chamois may be conveniently held in the left hand, while the right is free to manipulate the needle.

With the needle in *situ* crossing the vessel as above directed, the current continues to flow freely, but is instantaneously arrested, when the needle, moved by its point, is made to pass through an arc of ninety degrees. The partial or complete arrest of the current may be accomplished at will by a variety of other movements of the needle, which the operator can extemporise, such as working it through a horizontal arc, bringing it obliquely across the tube, &c.

If the drum be fixed, as may be done by attaching it to a pile of books or other object placed on the table before him, taking care to proportionately elevate the tumbler or other vessel which contains the water supply, the experimenter has thus his two hands at liberty, and can practice at leisure the various modes of passing the needle, with or without wire loops or thread, now in use, and so fully and graphically detailed by Professor Pirrie and others. It is almost needless to add, that each time the current is arrested by the skill of the experimenter in his extemporised operation, it can be set in motion again by a momentary "suck" at the free end of the tube.

While engaged with the above described, almost toy-like manipulations, I was led to try the effect of the chamois band and pin on the radial and other vessels, and I confess I was surprised at the facility with which the current in the lining artery can be controlled by this extemporized "Pin-Tourniquet" as I propose to call it.

By the use of an elastic band, of vulcanized india-rubber, of pliant leather, of common cloth, and of almost any extemporized material of sufficient firmness and pliability, I believe that with the aid of a properly-handed acupressure needle, or even with a common pin of sufficient size, almost any of the superficial vessels may be effectually controlled.

When from excessive nervous sensitiveness, or other causes, there is any difficulty on the part of the patient as to the skin being pierced, I believe it will be found that in many cases, of lesser wounds at all events, the vessel which requires to be controlled may be fully commanded by the use of the "Pin-Tourniquet" as above described, without perforation of the skin. If this procedure be found sufficient to control the hæmorrhage, it would no doubt still further enhance the prospects of union by the first intention, that great desideratum in the surgery of all wounds by accident or incision.

That acupressure is not free from the danger of injury to the vessel in unpractised hands, will, I am satisfied, be one day shown in the further experience of the operation, and hence I think it will be readily conceded that practice in passing the needle on such a little apparatus as that I have devised, may not be without advantages to the uninitiated. The oozing of water will be a tell-tale safer in result than the escape of blood from a punctured artery. If the difficulties of the situation in actual practice are to be more fully realized in preparatory experiment, one or two india-rubber venæ comitas may be placed side by side with the artificial artery, and different coloured fluids employed to represent the venus and arterial currents.

I have to apologise for the length to which this communication has run, but the great interest which centres in all that concerns this novel and most valuable addition to surgical therapeutics, must plead my excuse.

ROBERT D. LYONS.

8, Merrion-square, West, Dublin,
Sept. 1, 1867.

THE ORIGIN OF NERVE FORCE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Permit me, through the medium of your journal, to introduce to the notice of the Profession a subject which must be deeply interesting to every lover of science. The subject which I allude to is a rather hackneyed one, but, nevertheless, not the less interesting, viz., the origin of nerve force. When I put forward a theory, I do so in the hope that the subject may be taken up by some one more competent than myself, who may work it out more completely, and thus throw some light on this interesting but mysterious department of physiology.

In the first place, then, by way of preface, I shall assume, with Baron Reichenback, that electricity, heat, &c., &c., and I will add *nerve force*, are only modifications or results of the one great force that pervades all nature. Whether we consider the force that keeps the spheres in their orbits (gravitation), or the force which cements the fragments of a piece of marble (cohesion), or, again, the force which unites the elements

of this same piece of marble (chemical affinity),—all, I say, are one and the same, differing only in the circumstances of application, not in the force itself. This I think the more necessary to insist upon, as I know that many try by hair-drawn distinctions to separate what are called the physical forces, and even to prove that statical and dynamical electricity are developed by two distinct powers.

Starting from this, I would say that nerve force results from the interchange of elements during the act of nutrition of nerve tissue itself. We know that this is a chemical process. We know that dynamical electricity is developed by a similar process. We know also that the latter will not be rendered perceptible unless proper apparatus be supplied. Nerve tissue itself affords this apparatus, viz., the grey substance and axis cylender of Purkinje, as conducting medium, and the white substance as an insulating material. I therefore contend that nerve force is merely the result of the ordinary chemical changes going on in the body, which in other tissues give rise to animal heat, and that the peculiar constitution of nerve tissue permits of its accumulation. If my histological and electrical knowledge went far enough, I doubt not that I should be able to trace with more accuracy the striking analogy between the production of electrity and the production of nerve force; and it is to this point that I would earnestly direct attention. That nerve force is, we may say, identical with electricity, has long ago been admitted; and I think that the powerful effect of the application of ice to the spine may be explained by simply supposing a thermo-electric current to be produced by the inequality of temperature.

Hoping that critics will pardon me for bringing forward what they may consider an extravagant notion; and, still worse, if it should happen (since "there is nothing new under the sun") that these ideas have been expressed before.—I remain, sir, your obedient A.B., M.D., M.Ch.

BROWN AND POLSON'S CORN FLOUR.

We are requested to publish the following letter to Messrs. Brown and Polson in reference to statements contained in their advertisements:—

Gentlemen,—I see your advertisement, and I beg to assure you your averments are quite unsustained by facts. Take two children, or say two dogs, feed one on your corn food, and the other on common corn meal. The child, or the dog, fed on the latter will thrive, whereas the child, or the dog, fed on your corn starch, for corn flour it is not, will perish. Corn meal contains all the ingredients of life. Corn starch does not contain all the ingredients of life. As an occasional luxury, indeed, were you only to set it so forth, I should have nothing to object, but as peculiarly fitted for the diet of children, which you assert, corn starch be assured is quite unfitted. The white corn meal, freshly and cleanly ground from good corn, makes an admirable and most nutritive porridge. The yellow meal makes as good nead. Permit me to urge and advise you to transfer your praises to the corn meal, which is really a most excellent and sufficing food, and the great merits of which can, not, indeed, be too widely disseminated.—I am, gentlemen your obedient, servant, Henry MacCormac, M.D.

Messrs. Brown & Polson.

Gleanings.

The Importance to Medical Men of a Knowledge of Languages.—I do not go the length of saying that it is indispensable for the average practitioner to be able to read freely the aphorisms of Hippocrates in the original Greek, but I certainly desire in the strongest manner that some knowledge of this glorious tongue, such at least as will help to solve a historical difficulty, or to follow out an inquiry into the nomenclature and description of diseases, should always be preserved, along with a reasonable knowledge of Latin, as a feature of the medical curriculum. And here let me say a good word for the modern languages, and especially for French and German. Without these languages a physician or surgeon in the present day is not more than half educated. However carefully he may have been placed abreast of the science of the age when at college, he finds in a few years that he is losing ground, and that the progress of inquiry is opening up everywhere new lines of investigation which are practically closed to him because he has failed to provide the key to them in these two languages. There is not a single subject, I believe, in anatomy, physiology, practice of medicine, on which a man could at the present moment fairly say that he has mastered the latest information without a careful reading of some German *archiv* or French journal; and, in fact, I am every day consulted by students and practitioners, to whom I find it impossible to communicate accurate ideas without referring them to such sources of information—which, in too many instances, they declare their inability to consult. To everyone, therefore, to whom foreign languages are not an insuperable obstruction, I would say—avail yourselves by all means of the services of the excellent teachers of these languages in this city, and do so as soon as possible.—*Dr. Gairdner's Introductory Address.*

The Water Supply of Malta.—The excavation for water in the sandstone formation of the Massa Valley, as well as in other parts of the island, has been long practised with success by the natives. Mr. Bateman's suggestion of sinking a shaft through that rock has consequently no claims to originality. There are already several shafts of a like kind in the vicinity of the spot selected by that engineer, and, indeed, one, that of Mr. Scerri, lies within the distance of a few yards of it. It would, therefore, be highly improbable if water to some extent were not discovered in such a locality, not, however, for the reason stated in Mr. Bateman's proposal—the conversion of salt into fresh water by filtration through the rock, or from the sandstone itself being sufficiently porous to act as a sponge, but from the natural reservoirs in the sandstone, caused by the cracked and fissured nature of that rock draining the superficial rains from the neighbouring slopes. Up to the last accounts we have received the excavation had proceeded to a little more than 85 feet; and, although no great quantity of water had been met with, the character of the rock gave grounds for hoping that more would be found.—*Malta Times.*

Pauperism in London.—In 1857-1858, when there was a panic in the money market, and labour was ill employed, 77,660 paupers were relieved in London on one day, and the annual expenditure for the relief of the poor was £867,355; while in the year 1865-1866, when all who could work were actively employed, and labour in great demand, 111,019 paupers were relieved on the same date of the year, and the cost of relief amounted to £976,262 for the entire year. There were, therefore, 33,359 more paupers, and the expenditure was greater by more than £100,000. Nor is the whole truth included in this important statement. The number of persons relieved by the guardians on a particular day affords no real conception of the condition of the lower orders. Such an estimate of pauperism is not the exposition of the sum-total of social misery; it is only the comparative indicator of indigence; for every pauper relieved, four or five at least are living precariously from hand to mouth, and their resources are so scanty as to force them to apply for help upon the least reverse.—*Chamber's Journal.*

Medical News.

Cholera from Rice.—It is stated in the report of the Medical Officer of the Privy Council, that the researches of Dr. Hallier go far to prove that cholera results not merely from a fungus, but that this fungus is nothing more or less than the *smut* or *mould* of bad rice. Now, although the observations which go to prove the identity of the fungus found in choleraic discharges with that existing in diseased rice are certainly novel, the theory that cholera results from bad rice is by no means new. It has been started by various authorities, as may be seen by reference to Dr. Macpherson's "Cholera in its Home," but without any satisfactory demonstration. Dr. Hallier, however, has thrown a new argument into the scale.

Is there Fibrine in the Hepatic Vein?—Some pysiologists say no, but M. Vulpian, in a paper just read before the *Societé Philomathique* of Paris, comes to a different conclusion. M. Vulpian details the results of numerous experiments, and shows that when certain sources of error are eliminated the characteristic clot, which proves the presence of fibrine, may be easily obtained in blood drawn from both the hepatic and renal veins.

FEMALE PHYSICIANS IN THE LAST CENTURY.—It was thought, when Miss Elizabeth Blackwell presented herself to the world of Medicine, that she was a novelty worthy of note, but it seems, according to our contemporary, the *Athenæum*, that this lady had her prototype in the last century. Truly there is nothing new under the sun, and Miss Elizabeth Blackwell is not the first lady leech of the name. In 1737 we find that another Elizabeth Blackwell published her "Herball, containing 500 cuts of the plants most useful in Physic, engraved by her, with descriptions," two vols., London. This book went through some editions, and was subsequently brought out in Germany by Trew, of Nuremberg, in 1750.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Every MS. should bear the Name and Address of the Sender.

A Registered Practitioner will find full details in our forthcoming Student's Number. He does not specify which examination, or we could reply more fully.

T. C. D.—Your letter shall be inserted with pleasure as soon as we receive your card for its authentication, but not for publication.

BOOKS AND PAMPHLETS RECEIVED.

On the Formation of so-called Cells in Animal Bodies. By E. Montgomery, M.D. London: John Churchill and Sons.

Nice and its Climate. Second Edition. By Dr. Edwin Lee. London: Adams, Fleet-street.

The American Journal for July.

Journal de Medicine for August.

La Medicine Contemporaine for August.

Studies: Biographical and Literary. By George Ross, M.D. London: Simpkin, Marshall, and Co.

The Glasgow Medical Journal. &c., &c., &c.

MEDICAL APPOINTMENTS.

ENGLISH.

CALTHROP, C. W., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Manchester Royal Eye Hospital, vice David Little, M.D., resigned.

EDDISON, Dr. J. E., has been appointed Physician to the Leeds House of Recovery.

HALL, F., M.R.C.S.E., has been appointed Surgeon to the Leeds House of Recovery.

MAY, L. J., M.R.C.S.E., has been appointed Resident Medical Officer to the Finsbury Dispensary, Woodbridge-street, Clerkenwell, vice E. Meek, M.R.C.S.E., deceased.

PRANCE, C. R., M.D., M.R.C.P.L., has been appointed Physician to the South Devon and East Cornwall Hospital, vice C. Hingston, M.D., resigned.

RICHARDSON, W.E., M.R.C.S.E., has been appointed Physicians' Assistant at the Manchester Royal Infirmary.

THOMPSON,—M.R.C.S.E., has been appointed Physicians' Assistant at the West Riding Asylum, Wakefield, vice Dr. Fryer, whose term of office has expired.

IRISH.

MATURIN, W. H., L.K.Q.C.P.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Church-hill Dispensary District of the Letterkenny Union, Co. Donegal, vice H. M. Clarke, L.R.C.P.E., resigned.

WARD, Mr. Montgomery Albert, M.B., M.Ch., and ex-Medical Scholar, T.C.D., L.R.C.S.Z., has been unanimously elected one of the Medical Attendants of la Pensione Médicale, Charlemont Street.

SCOTCH.

ROBERTSON, D. M. C. L. A., M.D., has been appointed one of the Examiners at the Royal College of Surgeons, Edinburgh, vice A. Wood M.D., resigned.

Births, Marriages, and Deaths.

Announcements are inserted without charge, and must in all cases be authenticated with the signature of the sender.

BIRTHS.

GOODING.—On the 21st ult., at Bexley-place, Greenwich, the wife of Ralph Gooding, B.A., M.B., prematurely of a daughter, still-born.

SPALDING.—On the 26th ult., at Gorebridge, Edinburgh, the wife of Wm. Spalding, M.D., M.R.C.S., of a son.

GELSTON.—On the 29th ult., at 62, George-street, Limerick, the wife of Thomas I. Gelston, M.D., of a son.

MARRIAGES.

MALINS—OWEN.—On the 6th ult., at St. George's, Dublin, Edward Malins, M.B., of Cradley, Staffordshire, to Mary, only surviving daughter of the laste Henry Owen, Esq., C.E.

CROWTHER—PEARSON.—On the 20th ult., at St. James's Parish Church Congleton, Edward Lodewyk Crowther, M.B., M.S. Aber., M.R.C.S. Eng., L.S.A. Lond., L.R.C.P. Edin., &c., of Hobarton, Tasmania, to Elizabeth Rosaline, second and youngest surviving daughter of James Pearson, Esq., of West House, Congleton.

LATHBURY—STAINTON—On the 27th ult., at St. Mark's, Tollington-park, London, Thomas Arthur Lathbury, Surgeon, of Finsbury, to Mary Agnes, eldest daughter of Anthony Stainton, Esq., of Walthamstow.

DEATHS.

OWEN.—On the 17th ult., George Owen, M.R.C.S.E., of Machynlleth, Montgomeryshire.

FOULDS.—On the 17th ult., at Abbotsford-place, Glasgow, J. Foulds, jun., Surgeon, late of New Prestwick, aged 20.

WILLIAMSON.—On the 24th ult., at Mildmay-park, N., Albert Edward, infant son of James Williamson, M.D., aged 8 months.

Advertisements.

TO THE MEDICAL PROFESSION.

George Oldham and Co., Pharmaceutical Chemists and Apothecaries, take this opportunity to return their grateful acknowledgments to the Profession for the support they have hitherto received, and which they will regard as a fresh motive for exertion. Abstaining, either THEMSELVES or their ASSISTANTS, altogether from VISITING or PRESCRIBING, except for the application of Leeches, Cupping, or such operations as are performed under MEDICAL ADVICE, they will continue to devote themselves exclusively to the duties of the pure Pharmacien.

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J. J. Graham and Co. confine themselves strictly within the limits of the Pharmaceutical Profession, and under no circumstances do they take upon themselves Medical or Surgical duties, other than those performed by the Apothecary under Medical directions—namely, Cupping, Leeching, Blistering, &c.

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Lecture.

CLINICAL LECTURE ON CASES OF SO-CALLED HYSTERICAL DISEASE.

By C. HANDFIELD JONES, M.B.Cantab., F.R.S.
PHYSICIAN TO ST MARY'S HOSPITAL.

(Continued from page 214.)

BUT when the above position is conceded it remains unquestionably true that in the great majority of cases the convulsive paroxysm is the direct result of indulged emotion, though occasionally the impulse to the passion may be so strong and natural, or the nerve power may be so enfeebled in the controling centre, that the patient may be held quite innocent of voluntarily yielding herself up to it. I quite agree with Mr. Carter where he says that "paroxysms of the primary and secondary kinds may often be induced by the operation of an exciting cause, so powerful that no effort of the will would be sufficient to prevent their taking place, even if it succeeded in delaying them for a time. But such cases are rare, when compared with those in which the occurrence of the fit, although not volitional, is yet a matter of surrender, and might be prevented under the pressure of an adequate motive." He gives, at p. 47, an amusing illustration of this, which is matter of common experience. The following case may find its place here, as affording a good example of the effect of involuntary emotion in giving rise to hysterical phenomena :—

CHOREA PARALYTICA: APHONIA: EMOTIONAL DISTURBANCE: GRADUAL RECOVERY BY AID OF TONIC TREATMENT.

Case 1.—E. K., female, æt. 6, admitted July 3d. She had been ailing three weeks, was quite well before. Complained at first of pain in legs and arms, as the pains went away (her mother says) she got so curious in her movements, her hands always on the work. The last fortnight she has been quite unable to stand, but she can move her legs. Has frequent fits of passionate crying, in one of which she is now when her mother has come to see her, while a few minutes ago, while I was sitting by her, she was quite cheerful. Since she has been ill, scarcely speaks at all, could talk quite well before ; is not anæmic ; heart's sounds normal ; bowels costive ; appetite has been bad, is better now ; no muscular jactitations ; two younger children are healthy, and the parents also.

5th.—Improving ; is quite tranquil when I speak to her, but falls into a paroxysm of agitation and passionate crying when immediately after her mother came to see her. This could not have been from fear, for her mother seemed to be a good, kind parent, and had brought her a box of toys.

7th.—Was more agitated, and crying yesterday when thunder occurred.

14.—Cannot, or will not, stand ; does not move in bed, and passes most of her evacuations under her ; does not cry now except for a short while when her mother goes away. Tr. nucis vomicæ was now added to the citrate of iron and quinine she had been taking before.

August 8.—Is now greatly improved, is lively, talks, and moves about ; same treatment ; went out well. There can be no doubt that this was, *au fond*, a case of chorea, though the characteristic jactitations existed only for a short time. They were then replaced, as is often the case, to some extent, by paresis of the motor apparatus, especially as it would seem of the centres of innervation to the lower limbs and tongue. The emotional centres, however, were markedly hyperæsthetic, the general nerve debility assuming, in this situation, the same modification that it often does in the peripheral nerves. The paroxysms of agitation and crying appeared to me, as I witnessed them, of truly hysterical character, and were evidently the result of emotion, though of a pleasing kind. It is plain that there was no irritation proceeding from the sexual organs in this young child. The disorder was essentially one of the nervous system, a state of neurolysis, which yielded to the steady employment of iron, quinine, nux vomica, cod oil, and cold bathing.

Secondly.—As regards the non-paroxysmal phenomena, I believe the very same holds good. There are cases, and they are common enough, in which symptoms, apparently just like those which are commonly called hysterical occur, under circumstances which make it certain that they have no connection with emotional or mental excitement, but are simply the results of physical derangement. The three cases which I shall presently narrate are instances in proof, and many more might easily be added. Dr. Palmer's case of functional aphonia (*vide* Lancet, 1866, Feb. 16) may be adverted to as one, which, had it occurred in an enfeebled anæmic needlewoman, would surely have been called hysterical ; but as the patient was a labouring man, who lost his voice after a hard day's work, and regained it after a night's rest, and the aid of eight pints of porter, I presume the term will be considered inappropriate. The following histories relate to patients who have been recently under my care in the hospital, and about each of whom I have felt more or less doubt for some time, whether they were fit subjects for treatment by drugs. Yet, as the event has proved they were, the details are worth your attention, for you are certain to meet with similar cases yourselves.

PLEURODYNIA: APHONIA: NEURALGIA OF HEAD: HISTORY OF MALARIOUS DISORDER: TONIC TREATMENT: GREAT IMPROVEMENT.

Case 2.—E. A., female, æt. 38, single, admitted Feb. 16, 1867. Tall, slight, hair quite grey. Has been ill one month ; had first swelling of right knee, after that she got bad cough and pain in left side, which she has had a week. On admission she presented all the signs of a highly marked neurotic diathesis, tremor of the eyelids, aphonia, and panting hurried respiration ; skin cool ; pulse weak. Careful examination of the left side detected nothing morbid, the air was heard entering the lung fully without rale or friction. I was averse to taking her in, as I feared she would prove an unsatisfactory patient, but was overruled. Liq. opii. sed., ℥x., was injected subcutaneously into the left side, and she was ordered potassii iodidi, gr. ij. + ammoniæ carb., gr. iv. + tr. valerian, ʒi. + inf. valerian, ℥i. *ter die;* linim. bellad. lateri ; port wine, 4 oz.

18th.—Is much the same ; has a most woe-begone nervous aspect ; not suggestive to me of real suffering ; face flushed ; voice very whispering, but easily audible.

March 6th.—Has regained her voice ; is sitting up ; has been faradized once or twice. Called out sufficiently loud to be heard across the ward this morning on being told that if she did the faradization should not be employed.

9th.—Suffered very much yesterday from neuralgia in the head, confined to the right half of the head and face ; speaks audibly ; asks for iron and quinine, which always does her good. Ferri et quinæ citratis, gr. x. + spt. œth. chlor., ℥xv. + aq. ʒi. *ter die.*

12th.—Is better ; gets stronger ; the neuralgia is nothing like so bad as it was. She always has it, more or less. She gave me the following history of her previous illness : —Her hair turned grey at the age of seventeen, or rather began to, before this time she had typhoid followed by rheumatic fever. Of late years has suffered much from low fever ; had it much last night ; her tongue was quite parched. In these attacks of low fever her skin gets very hot and rough, and afterwards she perspires a great deal ; they make her very weak. They occur on and off all the year round. She was at Blackheath when the low fever commenced ; lived there fifteen years. In 1851, while at Blackheath, she had so-called congestion of the brain ; used to be light-headed every other day for a week, and then had low fever for nearly three months after. Is always better when taking iron and quinine ; she always resorts to it as long as she can afford to purchase it. Cod liver oil has also done her a great deal of good. She went out about a week after, very fairly well ; her voice was rather

weak, but not more so than that of many persons; her neuralgia was in its usual amount. I have omitted to mention that during the first week or ten days of her stay in the hospital, she lay continually, or almost continually, in bed half asleep. Subsequently she had no unusual drowsiness. I believe in thus yielding to her desire for repose, she took the best means for enabling her exhausted nervous system to recover strength. The aphonia in this female was plainly the so-called hysterical. But was it owing to want of will, or want of power? Some may think that the fact of her finding her voice under the stimulus of the wish to escape the faradization, is sufficient proof that her will was defective. I do not think that admitting this motive to have had some effect, she is thereby, in any degree, convicted of malingering any more than any of us would be who declined to move when we were very tired, but nevertheless started up and ran out of the house on hearing a cry of fire. There is no question (unless we disbelieve her tale altogether) that she had suffered for a very considerable time from a most wearying and enfeebling malady, chronic, obscure, remittent fever, with its attendant neuralgia, and that she improved very materially under an appropriate treatment. She had a bodily disorder, which was amended by physical agents, and I think it would have been sheer cruelty to have pronounced her a malingerer, and refused her the restorative remedies, which she herself asked for, from former experience of their good effects. I have recorded the case just as I took the notes at the time, and I am free to confess that my opinion of her was much modified, as I came to know more of her story. In another case, *apparently* very similar, faradization had no good effect whatever. The patient struggled a great deal, but I could not get her to utter a sound, and when it was repeated subsequently, she refused to attend any more. Here, I do not doubt, defect of will and not of strength was the real hindrance.

EXHAUSTION: FACIAL AND ABDOMINAL NEURALGIA: TONIC TREATMENT: RECOVERY.

Case 3.—J. E., æt. 39, married, thirteen children, admitted, March 30, 1867. Has been ill five weeks. Violent pain came on at first in both sides of abdomen, and in lumbar region of spine, and has continued ever since; is always the same; is not increased by light food; the pain goes down the legs to the knees and ancles; is increased by moving, and, she says, by pressure, but she allows me to handle the abdomen pretty freely, without her face indicating much pain. Only cares to lie quiet. If she puts herself out in the least, the pain becomes much worse. Does not sleep well; tongue pretty natural; bowels open; appetite lost; no thirst; skin cool; urine generally pale; pulse small, weak, 90. Her last confinement was six months ago; she only nursed one month this time, from failure of her milk; generally she has nursed fifteen months. Has had rheumatic fever three times, and much neuralgia of face. She was ordered ferri et quinæ citratis, gr. x. + tr. nucis vomicæ, ℥x. + spt. æth. chlor., ℥x. + aq., ℥i., *ter die*. Port wine, 8 oz. Her improvement, especially at first, was very slow, and her reiterated complaints were for some time sufficiently discouraging. Perseverance, however, in tonic treatment, brought us through; by May 8, she was almost entirely free from pain anywhere. Soon after she went out, and after a month's stay at the Walton Convalescent Asylum, she returned in very fair condition. She had no neuralgia then, but only some leucorrhœa. The tonic remedies were varied a good deal; she took pretty full doses of quinine, liq. potass arsenitis, ferri carb., and valerian + ammonia. Great temporary relief to the abdominal pain was afforded by an enema containing tr. opii + tr. assafœtidæ. This patient was evidently quite exhausted by her proletarian exertions, and her system was precisely in that condition which favours the invasion of neuralgia. There was nothing, therefore, surprising or extraordinary to me in her symptoms, yet, with many, I have no doubt the disorder would have ranked as hysterical colic, or pseudo-peritonitis, and the idea would not have been entertained that the cause of the malady was really failure of nerve power, and that a cure was to be obtained by steady persistence in strengthening remedies.

Case 4.—M. S., æt. 28, single, female, admitted June 26th, 1867. Has had rheumatic fever four times, has been ill as at present six years, the disorder has diminished at various times before, but has now been severe since last January. She suffers in the following manner:—While in bed at night she wakes up with loss of sight, or hearing, or speech; has lost the two former faculties simultaneously, but not the three together. The first time she was attacked she became blind, and remained so twenty-eight days. The blindness, as well as the other anæsthesiæ usually continues twenty-four hours. She does not feel bodily ill at these times. Sometimes, also, she loses (at night) the use of her left arm or leg which become rigid. Except on one occasion the affection of the limbs has always occurred apart from that of the sight, hearing, and speech. A sudden fright will bring on the disorder of the limbs, but not that of the senses. Always has pain in head, chiefly on the left side. The left knee at present is fully flexed, and if I attempt to straighten it the flexor muscles immediately contract more strongly (as if voluntarily), and she complains of much pain. Pulse 84, steady, and regular; appetite good. Has brought up in mornings a small quantity of clear blood. Potassii Bromidi gr. xx + M. Camph. ℈i. *ter die*.

27th.—The contraction of the leg has quite disappeared to-day.

28th.—Complains of headache; yestereven the lower jaw dropped very much, she could not close her mouth; her cheeks and eyelids were also drawn down; large drops of perspiration stood on her forehead, she had a kind of tremor all over, but was quite conscious. This state of things lasted half-an-hour.

29th.—No recurrence of disorder. Shower bath on alternate mornings; urine sp. gr. 1019, is free from albumen.

July 1st.—Her left arm got stiff about two A.M. yesterday, but recovered about eight P.M., it was agitated with clonic movements while it was recovering. Likes her shower-bath.

3rd.—Her jaw dropped again last night, and she lost her sight from nine P.M. to eight A.M. this morning; her sight returned while she was in the shower-bath. She affirms that at these times she cannot distinguish light from darkness.

10th.—Is doing well; no returns of disorder; asks to have her shower-bath every morning; ordered so.

13th.—Is doing well; has some backache only. Pot. Bromidi gr. x. + Tr. Cinchon. ℥i + Aq. ℥i *ter die*. I learned to day, for the first time, that she had a sudden fright six years ago, from the sudden death of a person, a cousin to whom she was much attached, probably her *fiancé*. This occurred in January, and in March her attacks came on.

17th.—Continues to do well; is better than she has been for a long time; went out soon after.

When I showed the notes of this case to a well-instructed physician the word hysterical was on his lips immediately, and the same impression existed in the mind of my very intelligent clerk, Mr. Palk. For myself, I doubted. On the one hand, the apparent voluntary action of the flexor muscles of the contracted limb looked suspicious; on the other, the symptoms were much less persistent than one would expect them to be, and than I had known them to be in a previous instance. The rigid contraction, indicating an excited state of the motor centre, suggested the use of the bromide. From it, as also from the shower-bath, much improvement evidently resulted. I was not acquainted with the probable cause of the malady until she had been more than a fortnight under my care, or I should have felt less doubt as to the real nature of the case. It is well-known that permanent insanity (dementia) has resulted from a similar mental shock. A case of fatal chorea occurred under Dr. Chambers' care, at St. Mary's,

which depended, I believe, on a like cause, and Bamberger relates a case where convulsions, paresis of the limbs and death, were produced in the same way. To class such sufferers with selfish malingerers seems to me opposed to common sense and justice. The latter have never been scathed by any terrible stroke, they can show no adequate cause for their symptoms, they exaggerate their troubles, and being by no means anxious to be freed from them derive no real benefit from any remedies. No true hysteric patient I ween would express her liking of a shower-bath, and ask to have it every day.

Lastly, all men of experience must agree, that not unfrequently all the manifold phases of hysterical disorder are more or less wilfully, and of set purpose simulated. Abundant instances of this kind are on record, and we have certainly only ourselves to blame, if forewarned we are not forearmed. Let me remark, however, how the old adage, that "naturam morborum remedia ostendunt," is verified here. The success of such moral treatment, as Mr. Carter has so excellently described in his work, and carried out in practice, proves absolutely that the disorder in such instances is not of material origin; while vice versâ, I may fairly argue that where drugs and ordinary hygiene avail without moral treatment, the body is much more at fault than the mind.

But you will ask me how are we to distinguish the one class of cases from the other, how are we to recognize those whose disorder is chiefly physical, and those in whom it is mental. In some instances there is no difficulty, in others it is no easy task. You must look to the patient's history, you must try to ascertain under what circumstances the disorder has come on. You must note whether she has suffered in mind or body, whether she has been depressed by prolonged anxiety, grief, care, or any other mental trouble. You must enquire whether she has been debilitated by menorrhagia, hæmorrhoids, over nursing, some recent acute illness, malarious influence; whether there is reason to think that a toxic condition of blood, such as gouty, or some remote irritation, intestinal, uterine, or ovarian, may be vexing and depressing the nervous system. You must note whether she can take thought for others, or whether she is utterly selfish and absorbed in her own troubles. You must observe whether she has an ear for the call of duty, or only for that of pleasure. You must not be too harsh in your judgment even when circumstances may look rather suspicious, especially when you are dealing with the overstrained and overworked, whether in high or low station. Remember that sympathy under suffering is naturally and lawfully desired by us all, and that it may be hard for you to appreciate the amount of distress which another may be enduring. The Psalmist, writing prophetically of the purest and noblest that ever wore human form, makes him say—"I looked for some to have pity (margin, to lament with me), but there was no man, and for comforters, but I found none." If He, the sinless one, felt this need, much more may we. So long as the desire does not warp the moral sense, and lead to downright selfishness, or wilful deception, we should lean in our judgment to the side of charity. But when once this limit is passed, and we feel that the patient is no longer trustworthy, we may and ought to suspend medicine, for otherwise we become, as Mr. Carter tells us, most helpful accomplices in her impostures. The most difficult cases are those (and they are far from being infrequent), where there is unquestionably bodily disorder as well as mental, and it is a hard matter to discover whether the latter is or is not (as it surely may be) dependent on the former. Here we must watchfully observe the effect of physical and moral agencies, and according as the one or the other avail, must we frame our judgment of the individual case.

I conclude this lecture with the earnest counsel that you will not allow yourselves to call all cases of obscure and anomalous nerve disorder, hysterical. The term is unquestionably often used to denote unreal, imaginary, self-produced, or encouraged illness, and to such cases I would have it restricted. Other more frequent cases would be better designated as neurolytic, an epithet which I proposed many years ago, and which has the advantage of expressing a fact, without affirming anything as to its causation. I may add that you will find in a little work recently published by Dr. de Berdt Hovell, views which go still further in some respects than mine.

Original Communications.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

ON CERTAIN RESEMBLANCES BETWEEN PHENOMENA RESULTING FROM MECHANICAL AND CHEMICAL, OR POISONOUS OR OTHER FORCES, AS SUGGESTIVE OF SOME LAW IN COMMON.

Most men engaged in scientific research, feel that the various facts connected with the subject of the co-relation of forces, afford a prospect of some higher generalization than that to which men have yet arrived. Such a multitude of facts point so suggestively to a common force, that the obscurity which at present, seems to shroud various forces, as electricity, magnetism, light, heat, &c., in certain peculiarities is very probably about to be removed. I think medical science would promise an equally rich fruition, were it cultivated with the same rigorous observance of the rules of logic and induction.

I have no idea that in these sketches I shall inspire any reader with my own enthusiasm. The induction of facts is tedious, but I will make them as suggestive as I can, by stating them exactly in the order in which they engaged my attention.

The subjects with which I commenced my investigations, (now a great many years ago), were the so-called Syphilis, and the popular remedy for it, Mercury, with a view to ascertain, if possible, the nature of their relations to each other, and the phenomena which appeared to be sequences on their administration. It is, perhaps, as well that we should look back for a moment on the state of certain questions as they stood at the time of John Hunter, and some years subsequent thereto. John Hunter seems to have considered the action of mercury chiefly in relation to syphilis. For this disease it was looked on as the proper remedy or even antidote, for the antagonism, as supposed, between these poisons or forces, or by whatever name one chooses to designate them, was so complete, that mercury was in the main regarded as a test of the presence of syphilis so that if a given case did not yield to the action of that mineral, it was scarcely regarded as the disease for which it had been administered.

There were not wanting, however, persons who at that time were dissatisfied with such views of the matter; cases occurred in which mercury had not only been unsuccessful, but in which it appeared to have been injurious; cases too, which had, from their history, been regarded as unquestionable examples of syphilis. Then, again, mercury had appeared to be injurious in persons in whom it had previously been apparently beneficial. Again, cases occurred indistinguishably simulating syphilis, but under circumstances which seemed prohibitory of the occurrence of that disease, without some hypothesis too violent to be entertained with any approach to probability.

John Abernethy early distinguished himself by the observation of these and many other phenomena, and very soon instituted, with his characteristic discrimination, a

more cautious and circumspect practice. In one respect this was a very important step, because in the practical distrust of the prevailing impressions, it afforded opportunity for more discriminative observation. This led him to the fact, that however undistinguishable from syphilis certain cases might be in their external phenomena, they neither occurred under circumstances justifying the idea of the presence of that poison or force, nor did they require mercury as it had been ordinarily administered for their cure. Now, to these cases he gave a simple, and at first sight, the apparently unobjectionable name of pseudo-syphilis.

But perhaps, after all, it was an example of infelicitous nomenclature. It implied something like a recognition of the alleged relations of syphilis, and thus leading men to satisfy themselves by thinking of *modifications* of this or that form of disease, seemed to answer a question without really doing anything positive towards the solution of it. It thus rather perhaps tended to retard the very inquiry it was so admirably calculated to hasten. This effect was perhaps further ministered to by Abernethy's treatment, including (notwithstanding a more cautious and investigating conduct of it), the same remedy, viz., Mercury. At the same time, there were many persons, who, however exceptional the number, their character, their motives, or their influence, early denied, or professed to deny the necessity of the use of mercury at all in the cure of syphilis. These people, usually very astute, and with no ordinary appetency for money, have sometimes in their reckless experiments, anticipated facts, which were necessarily more slowly developed in the tardy results of the more cautious and conscientious practitioner. For, to say nothing that many points of knowledge have been hit on by accident, not a little of anticipative observation has arisen from the too common habit or tendency to determine that what we cannot do, is impossible, in other words, that our present powers in combating disease, constitute a kind of *ultima thule*, a conclusion, when so stated, in which few would at any time be bold enough to indulge.

In this state of things, my public duties (which involved very extensive responsibility), obliged me to consider the whole subject, whilst they presented me with very extensive opportunities of so doing. It immediately occurred to me that the objects of research were in a state of great confusion. That a tendency to reason on certain abstractions seemed to prove every body right, or every body wrong, just as the measure of individual experience led them to determine.

It was, however, important to observe that, although the use of mercury had become somewhat moderated as a remedy for syphilis, it was very largely administered in inflammatory affections, where there was no idea of syphilis whatever. Now, these cases were the first that drew my attention, and awakened a new interest in the subject.

I found, in fact, that some of these cases were followed by phenomena identical in appearance with those which were held to be characteristic of syphilis, and in cases, in which at no period had the history afforded any reason for supposing the existence of syphilis in any form. I had at one period no less than six examples of this kind under my care, and I stated the fact at the Philosophical (now I believe called the Abernethian) Society of St. Bartholomew's Hospital, in order that gentlemen who felt interested in the subject might see the cases for themselves. This struck me as a very important fact. The circumstance that two apparently unconnected influences should produce phenomena undistinguishable from each other, suggested that they might produce similar disorders in the system; but at that time I did not venture farther than that conjecture, but I soon found examples proving the fact; but I have no space for cases.

Now, here I would desire my reader, in order to our understanding the matter, and each other clearly, to bear in mind:—

1st. That two forces, or poisons, or influences, may induce phenomena, which in their external and visible signs are not distinguishable from each other, without justifying the conclusion that the forces are identical in their intrinsic nature.

The only safe conclusion from *those premises* being that the one common property they have is simply that they are injurious to the body.

On the contrary, many very familiar examples might be quoted of disease, where very different external appearances occur under the same law.

So that, in fact, no *identity* of external appearance is to be held as necessarily identifying the force whence it is produced, nor any *variety*, that it necessarily occurs under a *different* law.

At this period I occupied myself a good deal in thinking over the writings of Mr. Hunter on the subject of the sympathies of parts, and began to deduce the practical conclusions which I have sketched in the commentaries which have preceded this, and especially the importance of acting on primarily affected organs, of which I shall, by and bye, have more to say. Various cases led me to act on different organs, and in many the organ selected was the liver. In endeavouring to act on this organ so as to induce secretion from it, I tried to prescribe so that the medicine should pass slowly through the duodenum. I did this from having observed cases in which gentlemen sometimes told me that they did not think there was any congestion or torpor in the liver, because certain medicines usually given for that purpose had produced no evidence of it. Now, in these cases, I obtained very satisfactory evidence of torpid liver, and great benefit from *ordinary* means, so managed as to act slowly. It appeared to me in the cases in question, that the medicines, before given, had been eliminated by the bowels, and so had not acted on the liver at all. This view led me to think that many other things might do as well as mercury, so I occasionally employed ordinary aperients, and endeavoured to render the action of them slow, sometimes by combining them with small doses of hyoscyamus, confection of opium, or other sedatives, or with aromatics; in others giving them uncombined, but in very small doses, night and morning, or thrice a day, according to circumstances.

Abernethy always preferred giving aperients in graduated doses, but with another intention. He used to say it was the most philosophical way, as it enabled you to adapt the means to the ends you desired to produce. Well, in giving aperients, combined as I have said, sometimes the sedative might be in too great a dose, and require some further measure to carry out the medicine or the secretion it had excited, or both. The retention of either, of course, was to be avoided. Every one is familiar with that portean form of discomfort from the retention of anything which is intended to be discharged, and nothing is more mischievous than the retention of excretions. I found, now, that salivation might be excited by other things besides mercury, and this occurred in one case from scammony, and in another from aloes. This suggested to me that mercury might not derive the power which has been held to be so characteristic of it—viz., producing salivation from any specific property inherent in it as *mercury*, but simply in virtue of some property which, however different in the abstract from other poisons, might have the common character of being injurious to the œconomy. This view was somewhat strengthened by the recollection that mercury itself does not, *as the rule*, readily salivate, unless by some means factitious or other it is retained, or otherwise impeded in its passage through the body.

About the same time I was sent for to a drayman, of about thirty-three years of age, who went to bed, as reported, as well as usual, and awoke, after a cold night, with two of his fingers quite dark, and as the event proved, mortified. When I visited him I found him enormously fat, with an apparently very full liver, and in a state of salivation. He had nothing the matter with him besides, and had taken no mercury nor any other medicine.

One of the fingers sloughed, the other only I think to the last phalanx. I need not say that I was particular in my

enquiries, and the more because the *odour* was mercurial, but I know now that may take place without mercury. Ultimately, he did very well by light diet, and relieving his liver and bowels. I know of another case, where the sloughing of two or three of the fingers was coincident with congested or perhaps diseased liver in a dignitary of the church. Reflecting on these and other cases, it seemed that the retention of a poison, or anything in the body, which ought to be expelled from it, lay at the bottom as it were of a multitude of phenomena, which must be subject to some common law. Nor was such suggestion, as it appeared to me, at variance with many subsequent phenomena which my opportunities furnished. Dr. Golding Bird called me into a case of Tetanus, to open an abscess in the finger, which he seemed to regard as the cause. I rigidly enquired into the man's history, and found as I thought the state of his system, to which this extraordinary result was owing, and here I would observe that I use the word *extraordinary* because it is not apparently weighed, I think, as demonstrating some different condition of body ; all people thus affected by traumatic tetanus, as it is termed, have had wounds many times without any such result. Well, Dr. Bird allowed me to treat the patient in my own way, by acting on his liver and other secretions, but with every *painstaking* I could think of, to avoid *any irritation* to the mucous membrane of his bowels. The result was that the tetanus subsided, and then Dr. Bird suggested my opening the abscess, but this I begged of him not to press, for, said I, in the view of some people it will spoil the case. The abscess therefore, was allowed to make its way to the surface without interference. I considered this and many other cases with reference to the general production of muscular spasm, and with an endeavour to connect spasms of more ordinary occurrence, as those incident to worms, chorea, cramps, and soon, with the less frequent, as those of tetanus, and the following description : I was called on to pass a bougie in the rectum of a woman about 35 years of age, when she was siezed with a severe attack of opisthotonos. She had suffered no pain from the instrument, nor did she appear alarmed at its introduction, nor was there any other circumstances admonishing me of the approach of any unusual symptom. She was strongly bent forward, and was about a quarter of an hour or twenty minutes in recovering from it. I need scarcely say, that the bougie was withdrawn on the occurrence of the spasm. I have met with another case far more remarkable and more severe: A tall lady was seized with the most violent opisthotonos, no other exciting cause than placing the hand gently on epigastrium. In this case the head was bent back with such violence, and the body was acting on the bed with the power of so long a lever, that I was obliged to raise her *en masse* from the bed, which required all the strength I had. I was really fearful that she would have injured the neck. This was witnessed by a lady who was present, and who had seen this kind of attack on other occasions.

Now, these and similar facts strengthened the idea that poisonous and all other injurious influences acted under a common law, and that so long as they fell within that limitation of power of resistance of the body, or in other words, so long as they were not in such force as at once to destroy ; that the varying effects in different persons, or the *ordinary* similarity of effects were due, not to the intrinsic difference of the material or poison, but the varying or similar conditions under which they were administered. That the common resource or remediable action, when that was within the power of the œconomy, was secretion, and that moderate affection of the voluntary muscles was simply a result of injurious influences acting on the nervous system, whilst the power of secretion was either destroyed or held in temporary abeyance. This was the state of my views when I met with a book published by M. Morel—"Traité des Degenerscœnces physiques Intellectuells et Morales de l'espece Humaine." In this book, written with an entirely different object, a great number and variety of facts are recorded, which are not only of very high interest as regards the learned author's particular object, but very pertinent also to our present enquiry.

I have no space to quote largely from M. Morel's ingenious work. I can only refer to the general result which I gather from his interesting discussion as to the effects of various kinds of poison of damaged corn, as ergoted rye, and others. He remarks on alcohol, opium, tobacco, lead, mercury, &c., that, with acknowledged differences in the effects of these poisons, they terminate, after a certain exhibition of force, in manners very strikingly resembling each other. After observing that the action of unwholesome food ("substances alimentaries viciées"), is the more special object of his researches, he says, with reference to the history he gives of various poisons—"L'action exercée sur le systeme nerveue par le mercure, le cuivre, le phosphore, et l'arsenic n'entrera en ligne de compte que pour mieux faire ressortir, certaines analogies etablies les bases du diagnostic differential, et prouver, que les maladies que vu la nature de la cause offrent des symptomes primitifs essertaellement differents presentert neanmoins dans leur terminaison des points de rassemblances tel que l'onpeut pour ainsi re considerer ces affections comme appartenants a la méme entité pathologique," p. 202.

I can only refer the reader who desires to go further into the subject, to consult M. Morel's interesting work. No doubt the impression of the importance of the point of view whence he looks at the various injurious influences of which he treats will be very much modified by the previous studies of his readers; but to those who have given some attention to the degrees which certain conditions of the body will, with certain limitations, modify the effects of injurious influences; and to those who have traced sympathetic phenomena, not only the general sympathies exhibited between mind and body, but also in the relative preferences of different organs of the one with certain faculties of the other, the book must not only, I think, be very interesting, but highly suggestive. With regard to injurious influences, it seems to me to impose a very salutary caution on any endeavour to restrict their individual peculiarities. For it would seem that, though to a certain point, there is something characteristic, there is a tendency beyond that to merge as it were into a series of phenomena strikingly similar, and yet not of such force as to be necessarily destructive. When we see a simple passage of a bougie producing Tetanus however temporary, in one case, the application of the hand to the epigastrium in another followed by an alarming attack which could only be described by terms almost identical with those applied by M. Morel to a case under the influence of lead, and then compare them with the phenomena resulting from strychnia, and the multiform cases of tetanus, and other disturbances of the voluntary muscles ; it strongly suggests that there is some general law under which we shall be able to marshal these phenomena more intelligible and instructive than any of which we are present in possession.

I have no disposition to speculate on this subject without further enquiry; but thinking aloud, as it were, with my readers, it seems to me first, that the great safety valve of every desturbing influence, no matter of what kind, is secretion. I think this is universal, that whether we weep from sorrow, or from mustard, that as regards the eye the law is the same ; in the one case it relieved the vessels of the eye from an irritating stimulant, in the other the vessels of the brain *per tárto*, by determination to surface.

That the retention of anything in the body which is not necessary, whether foreign to it, in the ordinary sense of the word, or that which should be excreted is the common basis of mischief, and that spasm of the voluntary muscles seems the necessary result of that retention unless secretion be continued with a given force. In short, that in the body as outof the body, every force must do some-

thing, and if it be applied to a living body it must be expended in the *ordinary* work of that body; or if it is to be innocuous it must be expended in secretion. I think the phenomena of disease seem to bear me out in this, but I speak with caution. This is nowhere more necessary than in relation to mercury and syphilis, on which I propose to record a few observations in the next commentary.

THE SPINAL ICE-BAG IN CEREBRO-SPINAL INFLAMMATION.

By JOHN MORGAN, F.R.C.S.I.,

PROFESSOR OF DESCRIPTIVE ANATOMY TO THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE following case I conceive of interest, as it tends to show the value of the spinal ice-bag of Dr. Chapman in the treatment of cerebro-spinal inflammation.

A lithe and hitherto healthy boy, æt. 9, was admitted at 4·30 A.M., Aug. 27, 1867, to Mercer's Hospital. His parents state that he was a little ailing the evening previous on going to bed, and shortly after became restless and rambling, picking at the clothes, and in fits as they describe. The symptoms so increased in intensity that early in the morning he was brought to hospital. The raving was now incessant, but he was capable of obeying when repeatedly desired, putting out the tongue rapidly and with a jerk of the muscles; face rather flushed; head retracted; sterno-mastoid muscles tense; no dysphagia; muscles of trunk and extremities moderately rigid, but becoming more so on slight pressure, though not by pressure over spine; surface warm, and on examination a curious blush was distinct over the lower half of body, having the appearance of a capillary excitement of the skin, and not of a rash. Pupils enormously dilated and quite insensible; there was one attempt at vomiting; belly slightly tumid; pulse 120; tongue clean and moist. An ice-bag not being at hand cold effusion was used over the head and occiput, with rather tranquilizing effect; turpentine enema with fœtid tincture administered; and hydrarg. c. creta, gr. ij., pulv. jalapæ co., gr. xij., every two hours; turpentine stupe to the belly.

Eleven o'clock.—There is now more distinct tendency to spasmodic action of the muscles of a tonic nature, the pupils being observed distinctly to dilate more at the approach of a spasm; three suspicious purpuric spots on one, and two on the other arm are now seen; a large sized ice-bag was now charged with ice and salt, and applied along the spine from occiput to lumbar region; the immediate effect was contraction of the pupils, though not to their normal size; diminution of the spasm and restlessness, and what was remarkable, of the blush over lower limbs; belly is rather tumid; ice-bag to be refilled at two hours interval.

Evening visit.—Tension of muscles rather less; pulse 108; blush of lower limbs disappeared; bowels but once freed; ordered olei crotonis. gtt. ss., calomel, gr. iv.; continue ice-bag at two hours interval.

August 28th, nine A.M.—Slept none; delirium and restlessness constant; the arms at times rigidly stretched out; twitching of the muscles of face, which is now rather pale; pulse 100, weaker; tongue moist; pupils still dilated; muscles not so tense, and certainly relieved on each refilling of the ice-bag; the belly still rather tumid; bowels once moved; calomel and croton-oil to be repeated, and followed by sulphatis quinnæ, gr. v., every three hours; iced beef-tea to be freely given; continue the ice-bag without intermission.

Evening visit.—Rigidity of muscles yielding; pupils slightly contracting; can obey directions; bowels once moved; slept a few minutes in the afternoon; pulse 100; tongue clean; herpes of upper lip now appearing; continue the quinine and beef-tea, and ice-bag at three hours interval.

Half-past nine A.M., August 29th.—Decidedly better; consciousness returning; pupils contracting; can recognise faces, and answer questions; rigidity relaxing; can bend the head forward so as to touch chest with chin; had slept five hours; herpes about size of three-penny piece; to continue quinine and beef-tea, which latter he takes freely; ice-bag continued at four hours interval.

Evening visit, 29th August.—Improvement so manifest, that the ice-bag is dispensed with. Quinine and beef-tea continued for the present.

September 1st.—The boy is allowed home, and to attend dispensary. The service of the ice-bag in this case was manifested in the reducing of the muscular tension, the diminution of the excitement and delirium, and the effect on the pupils was very remarkable, the contraction occurring within a few seconds after its application. It might be supposed that the continued application of so large a bag of ice would have caused some local mischief, but such did not appear, allowance was made for some difficulty in keeping the bag applied, owing to the patient's condition.

In some cases where, as in the present one, I have had the opportunity of examining into the conditions under which the attack came on, some extra exertion (which may possibly, however, be assumed to be merely an evidence of health) had been gone through the day or so preceding the development of the disease, whether showing itself as febris nigra, or with spinal symptoms preponderating:—

1	fatal case	in a gentleman,	rowing the day before.
1	„	„	kicking football the same day.
1	„	„	engaged in athletics the day before.
1	„	in an adult,	who had been arranging his house.
1	„	in a child, 5 years old,	who had returned from an over-long walk only a few hours.

And the subject of the present case had been running races the previous evening. The three former cases died with purpuric symptoms; the fourth and fifth cases with the cerebro-spinal, and this one has been saved, as I believe, by the use of the ice-bag, in combination with the free exhibition of quinine and support.

I gave quinine freely in this case on the conservative principle, having been particularly struck with its good effects in the fourth case alluded to, where a 20 grain dose of quinine caused an undoubted improvement for the time; and on post-mortem examination, the most characteristic signs of cerebro-spinal inflammation were manifest, and in the fifth case alluded to, I tried the most active mercurial treatment with support and counter-irritation without avail, the patient being carried off in a short time. As this boy showed from the commencement acute spinal symptoms, I think the results so favourable to the ice-bag treatment, that I hasten to submit it for further trial and experience.

ON THE FUNCTION OF THE AURICULAR APPENDIX.

By ISAAC ASHE, M.B.

(Abstract of Paper read before the Meeting of the British Medical Association, held in Dublin, August, 1867.)

WHEN we find a definite and well-marked piece of mechanism in the animal economy, we are warranted in assuming that it has a definite and well-marked function to perform. No such function has as yet, to my mind, been assigned to the auricular appendix, which nevertheless presents marks of very distinct purpose in its construction. It has been said that it is intended to mix up the blood in the auricle more effectually; but, besides the obvious reply that we have no reason to suppose the blood to require any such process in the auricle any more than in the venæ cavæ, we have, I think, a distinct refutation of this view in the fact that the appendix contracts after the sinus, and hence when most of the blood has been expelled from the auricle.

On the other hand, no sufficient explanation has as yet been offered of the question how the auricle, being a chamber thin and weak in its walls, is yet able, by the muscular

force of those walls, to dilate even to tension a chamber like the ventricle, whose walls are much thicker and more powerful alike in contraction and in tensive resistance to dilatation.

The relaxation of the ventricle no doubt permits the entrance of a certain amount of blood, but this is a very different thing from the state of extreme tension which is subsequently produced by the auricular systole.

But let me point out that the increasing surface of fluid inside the ventricle permits of hydraulic pressure being brought to bear on its distension by means of the auricular systole, in accordance with the well-known hydrostatic law of the equal transmission of pressure in all directions by fluids, the dilating force within the ventricle increasing, *pari passu*, with the capacity of the chamber, and consequently with the increasing resistance of its walls, due to greater tension.

Have we any hints afforded us that the function of the auricular appendix is to carry on and complete this exercise of hydrostatic pressure? I think we have two; the first contained in the fact that the auricle, as is well known, does not completely empty itself of blood; the second contained in the fact that the appendix contracts after the sinus.

In consequence of the auricle not completely emptying itself, not only is it possible for the hydrostatic pressure to be maintained up to the instant of the complete closure of the auriculo-ventricular valves, but also it is possible for this pressure to be exercised by any farther contraction in any part of the auricular cavity, the pressure being conveyed to the ventricle through the small column of blood still remaining in the auricle.

In consequence of the contraction of the appendix after the sinus, the force of the former comes into play just when that of the sinus is nearly spent, in consequence of its complete contraction, and just at the moment when such force is most required, to effect the complete dilatation of the ventricle, and when, moreover, it can be most effectively applied for this purpose, in consequence of the increase of the fluid surface within the ventricle. It is evident that although the force of the appendix acts as a maximum against the walls of the dilated ventricle, it acts as a minimum against the walls of the auricular sinus, by reason of the contracted state of the latter.

In what light are we to regard the presence of the musculi pectinati within the appendix, a structure altogether too complicated and definite to be without a distinct purpose, which is not, as seems to me, satisfactorily assigned by either of the conflicting views commonly given of their function, that is to say, on the one hand, that they are for the purpose of strengthening the wall, which would be too weak without them; or, on the other hand, that they are the remains of a thicker wall, which has had portions removed for the purpose of weakening it, leaving the interstices between these musculi; surely either end might have been equally well accomplished by a definite thickness of smooth wall; surely Nature never so wastes her ingenuity. I regard them as being intended more completely to empty the appendix of blood, by means of their mutual packing together, a purpose which could not so well be accomplished by any thickness of a smooth wall, but which is yet necessary to supply a sufficient amount of fluid for injection into the ventricle, since, without this, hydrostatic pressure fails altogether.

I do not regard it as any argument against the view I have here put forward of the function of the appendix, to say that some animals do not possess it; as well might we deny the functions assigned to our second auricle and ventricle, on the ground that fishes possess but one of each.

I consider further that the auricles themselves are probably also subjected to hydrostatic pressure, by the contraction of the muscular fibres which surround the great veins for some distance from their entrance into them, by which I consider the complete distension of the auricles themselves to be effected.

REPORT ON WINE.

[SPECIALLY PREPARED FOR THE MEDICAL PRESS AND CIRCULAR.]

II. PORT—*(Continued.)*

WHEN we consider the complete monopoly enjoyed for more than a century by the producers of this wine, it is not surprising that the taste acquired and fostered during that long period should not immediately change. Indeed, we know well enough that the protection afforded for a long time failed to establish the wine in the favour of the English people, and a taste slow to grow is naturally slow also to decline. The Methuen treaty, entered into in 1703, may be accepted as the commencement of port-wine drinking in England; for although prior to this date Portugal had sent us some wine, and very likely part of that may have been what we call port wine, yet the quantity was insignificant until the treaty levied a discriminating duty. From the date of the treaty, moreover, there was every encouragement for the growers to send to England their very best wines, and so real port was brought into favour by restrictions which were maintained with more or less rigour for 130 years. In 1704, the first year after the conclusion of the Methuen treaty, England imported 10,078 pipes of port. Under the management of the Oporto Wine Company, established in 1756, the quantity soon rose to an average of 22,000 pipes per annum. During the long war, the imports of this, as of all other luxuries, suffered from the impoverishment of the country, and also from the heavy duties imposed. Still, the discrimination being kept up, the relative proportion of the different sorts of wine was not much affected. The custom-house returns show that in 1830 the consumption of port had reached the figure of 2,869,608 gallons, and this may be considered as the quantity imported up to 1860, when the great revision of our wine duties was effected. Since then the amount has risen to more than 3,000,000 gallons yearly. This increase may be due to the reduction in the duty rendering it practicable to import inferior wines. At the same time it must be remembered that the increase is very trifling compared with that of French and other light wines.

The varying qualities of the wines produced in the same vineyards from year to year have often been commented upon, and form a subject of every-day conversation. The following statement as to the quality of produce of the port-wine district will not be devoid of interest. It is extracted from the blue-book already mentioned:—

1840	...	...	very fine.
1841	...	...	very bad.
1842	...	...	fine.
1843	...	...	middling.
1844	...	...	fine.
1845	...	...	inferior.
1846	...	...	good.
1847	...	...	very fine; rich.
1848	...	...	good; not so rich.
1849	...	...	middling.
1850	...	...	fine; very good.
1851	...	...	very fine.
1852	...	...	good.
1853	...	...	very good.
1854	...	...	fine.
1855	...	...	bad.
1856	...	...	very bad.
1857	...	...	bad.
1858	...	...	very good; rich.
1859	...	...	middling; watery.
1860	...	...	very good; dry.
1861	...	...	fine; rich.
1862	...	...	good; dry.
1863	...	...	very fine and rich.
1864	...	...	middling sweet and rather poor.
1865	...	...	good; not liked at first, but turned out well; rich.

The vintage of 1866, a cold and rainy season, was perhaps as bad as in other wine countries; but more was produced than was expected, and the wine has, at least, proved remarkably sound.

We come now to a consideration of the district in which

port wine is produced, and of the process adopted for obtaining it. So many conflicting accounts have been published, that it is quite evident some writers have included certain Portuguese wines in their descriptions which others have omitted. We have been treating up to this point of what is usually understood by port wine—the produce of a very small extent of country on the Douro. Before we can fully enter into the discussions that have arisen respecting this wine, it is absolutely necessary to devote some attention to the method of producing it, and as Mr. Crawford's report contains the most recent and authentic description, we have no hesitation in reproducing such passages as will serve our purpose, especially as they contain a number of incidental facts of considerable interest. He writes in the "Commercial Reports of the Foreign Office" (pp. 106-8) :—

"The true port wine is grown in a narrow strip of country along both banks of the river Douro. The greatest length of this district is twenty-six miles, and it lies nearly due east and west with the course of the river; its average width is six miles. The geological formation is a peculiar brown slaty schist, and the country is a series of lofty and precipitous hills. The wine-growing district is divided into two portions, known, from the name of the river which here falls into the Douro on its right bank, and separates them, as the Upper and the Lower Corgo. The wine district originally was confined to the Lower Corgo, where the soil is more loamy and the country less mountainous than the upper district.

"In the Upper Corgo the best wine is now grown, but the produce of the vineyards is not so great as in the Lower Corgo; the soil above being singularly barren, and more nearly resembling the debris from a stone quarry than a very highly-cultivated ground.

"The vines grown in the two districts are distinct, to some extent, in their species, and, to a greater extent, in the character of the grapes which they produce. A vine much grown in the Lower Corgo, and which may be taken as a type of all the species there employed, is the Bastardo—a producer of a fine wine with a large proportion of saccharine matter, of a very delicate flavour, but with very little colour. Another vine frequently used in the Lower Corgo, is the Alvarilhao.

"The grapes in the Upper Corgo are less abundant producers of a wine possessing more body, and of a very full colour and remarkable flavour. Among the varieties of vine, the most frequent are the Touriga the Tinta Francisca, Tinta Caa, &c.

"The vines are grown as in France, that is, close to the ground; not creeping over it, as at Xeres, nor supported on pollards or trellises, as in most other parts of the Peninsula, and in the majority of Italian vineyards.

"The operations of the vintage differ only in two or three material respects from those followed in France; and the differences in culture are, in general, not more considerable than the difference of soil and climate renders essential. One more material difference is, that the vine is so pruned as to leave fewer shoots for the ensuing year. This excessive pruning produces a richer grape, though a less abundant crop, than the French system. Again the grapes are gathered, not as in France, when they are merely ripe, but only after they have lost some part of their water by their continued exposure to the sun, and when, therefore, they are beginning to dry up into raisins, by which process the sugar and other ingredients in the grape, and subsequently in the wine, are developed in larger proportions to the watery particles; resembling, in this respect, those richer and very expensive wines (too costly for commercial purposes) which are known in France as "vins de paille," and are produced from grapes gathered in the usual way, but allowed to ripen afterwards in the heat of the sun.

"The vintage takes place, according to the season, from the 29th of September to the 10th of October. At this season, great numbers of labourers, principally from the adjacent villages and from Gallicia, flock into the district, increasing the numbers of those already engaged in the vineyards throughout the year. The average daily wages (with food supplied) are, for a vine-dresser, 1s.; for a common labourer with the hoe, from 8d. to 10d. The grape-gatherers are chiefly women and boys; their wages average 7d.; the allowance of food not, however, in any case, including bread. The exceedingly stony nature of the soil throughout the district, and particularly in the Upper Corgo, renders the use of the spade impossible; and even the ordinary hoe, the general implement of manual cultivation in Portugal, cannot be employed in the wine district. The tool used is a hoe (*cuxada*) having two strong prongs instead of the usual cutting part, and a heavy mass of iron on the opposite side. With the forked part, the large stones in the vineyards are turned over; with the other they receive one or two blows, which break them up, and expose them more thoroughly to the decomposing action of the atmosphere.

"The wine-making, though at first sight primitive, is, in all essential particulars, very cautiously and skilfully performed. The over-ripe or inferior grapes being picked out, the rest are thrown into a large stone-built vat (*lagar*). Into this as many men as can easily find room enter, and tread out the juice. The men stay in from twenty to thirty hours; the must is then allowed to stand until a thorough fermentation has taken place. At the fitting moment, judged either by the experience of the wine-maker, or more precisely by the use of the *glucuænometre*, the wine is run into tonnels which may contain from five to thirty pipes. It is now that a small portion of brandy is added, as is also done with sherry and madeira, to prevent the wine, containing as it does so many rich ingredients, from running into an excessive fermentation, and so losing too much of its saccharine matter. The necessity or expediency of so adding spirit at this stage of the process has been disputed by persons perhaps only theoretically conversant with the process of wine-making, but it is difficult to apply preconceived theories to the subject, in the presence of persons who have made it the business of their lives, whose interest it is to use as little spirit as possible, who are singularly free from prejudice, and whose continual efforts have been to enforce improved and enlightened processes of manufacture and modes of cultivation upon the farmers. It is very certain that, when made without brandy, the wines of the Douro, even if they would keep, which is a disputed point, have not any of the softness or flavour of port wine; but are intermediate in character between claret and burgundy, without possessing either the delicate bouquet of the one, or the flavour and 'roundness' of the other.

"The wine remains in the tonnel until the fermentation is checked by the cold weather of autumn, as is shown by the wine becoming clear and bright. This will occur towards the middle of November. The wine is then run off into pipes, containing each 115 gallons, and is ready to bring down to Oporto.

"It has latterly been the practice for most English firms to buy the wine by anticipation, and to superintend the making themselves. This has been the case for about twenty or thirty years, and has undoubtedly checked many malpractices on the part of the farmers, and led to much more care in the preparation of the wines.

"The new wine is brought down the river Douro in the early spring months, the river transport costing about 8s. 10d. for each pipe, and is lodged in the warehouse of the merchants at Oporto. It is here kept till ready for shipment to England, seldom being fit for that purpose for at least eighteen months."

We have not abbreviated Mr. Crawford's description, although it contains opinions to which, as the readers of the first portion of this report (MEDICAL PRESS AND CIRCULAR, Aug. 28), will have foreseen, we are not prepared to subscribe. A more thorough investigation of these theories will follow in due course. In the meantime, we are called upon, in reply to the inuendo about "*persons perhaps only theoretically conversant with the process of wine-making*," to remind the writer of a fact of which he is well aware, since he refers to it immediately afterwards—viz., that the late Baron Forrester was the chief person, and one of the earliest, too, who condemned the practice of brandying wine. Baron Forrester was not a person "only theoretically conversant with the process," but one of the most successful and scientific port-wine growers who ever lived one who earned the gratitude of Portugal for his improvements in the cultivation, and thus not only a practical man, but as Mr. Crawford himself admits, one "well calculated to form valuable opinions on any question connected with port wine." The reader will scarcely fail to notice another phrase of the above quotation, that in which the purchase by Englishmen of the wine by anticipation is admitted to have "*undoubtedly checked many malpractices on the part of the farmers.*" It would seem then if the addition of spirit be defensible, practices have existed which Mr. Crawford himself would scarcely defend. What we fear is, that they have not been efficiently checked, and

that others equally pernicious may have been introduced. This we shall inquire on a future occasion. At present we are concerned with the admitted practice of strengthening the wines by the addition of spirit—a practice technically termed *fortifying*, and which not only mere theorists, but practical growers, of whom the late Baron Forrester is a leading example, have unequivocally condemned as unnecessary and even injurious. We confess to a prejudice in favour of this view. We have read, and read patiently, all that has been said in favour of *fortifying;* we have heard from the lips of its advocates, their defence of the practice, but we are not convinced of its necessity. They tell us the English palate demands a spiritous liquor, but we reply that we have during the lifetime of the late Baron, drunk some of his wines, and declare that we have never tasted such delicious port. They talk of relative *strength*, and we prove to them, by analysis, that the amount of alcohol has nothing to do with the *quality*. They tell us this will not keep—the other, will not bear transport. We say Forrester's port was brought to this country—is brought to this day, and we certainly think that *fortifying* is a practice not to be encouraged.

But if little can be pleaded for the grower adding spirit at a certain stage of the fermentation, what is to be said of the importer who adds it when it arrives in this country? That at any rate is not necessary to elicit the perfection of the flavour of the grape, nor to complete the process of fermentation, nor to enable the wine to bear the voyage! It may be necessary to help to conceal the addition of other ingredients—say, as we are not now discussing noxious ones—simple water. But nothing else can be said about such malpractices. Water, brandy, potato-spirit, noxious substances—the addition of all or any of these by our merchants, is only correctly described by one word—ADULTERATION.

Hospital Reports.

SPECIAL REPORT ON THE TREATMENT OF UNUNITED FRACTURES.

No. VI.*

Professor BIGELOW'S Cases continued.

Case 8.—*Humerus.*—W. W., carpenter, aged 28, entered the hospital, January 2nd, 1865. He had his left humerus fractured, twelve weeks before by the falling of an elevator in the Pacific Mills. The fracture was simple, and treated in the usual way without success. On admission, there was an ununited fracture of the left humerus at a point a little below its middle. The ends of the fragments were in apposition. R. Syr. hypophosphit, ʒ ij., t. d. s.

January 7th.—A narrow-bladed knife was pricked through the integument and muscles to the bone, at the point of fracture. A small drill was then introduced through the wound, and each end of the bone was drilled in three places. The arm was placed in an inside and outside angular splint.

26th.—No union has taken place.

February 25th.—Operation by Professor Bigelow. Ether having been administered, a straight incision was made through the integument, on the outside of the arm, to the bone. The musculo-spiral nerve was so drawn out of place and embraced by the bone that it was accidentally divided in the blood which swelled up from the tissues, still inflamed from the operation of six weeks before. The ends of the bone were dissected from the periosteum, everted and sawed off. A piece, half an inch long, was taken from the upper fragment, and three quarters of an inch from the lower. A hole was then drilled through each end, and a silver plated, copper wire passed through and twisted. A suture was passed through the neurilemma of each end of the divided nerve and the extremities brought together. Several arteries were tied; the wound was closed by sutures, and the arm placed in an inside angular splint, to which it was first firmly bandaged, and then placed upon a flat angular splint, reaching from shoulder to hand.

26th—Numbness over the dorsal surface of thumb and index finger, and general paralysis of the extensors of the wrist and fingers.

March 3rd.—Wound suppurating healthily.

8th.—Hand considerably swollen, and elbow looking angry and red. The wound is everywhere open. The suture applied to neurilemma came away to-day. R. Pil. ferri iodidi., gr. v., 3. t. d.

16th.—Wound closing.

31st.—Considerable stiffness at point of fracture.

May 6th.—Humerus quite stiff.

25th.—But little discharge from sinus about wires. Appetite and general health excellent.

June 24th.—Under ether, the wire was untwisted and withdrawn. The humerus is perfectly stiff. Sensibility has returned to the thumb and index finger, but motion in all the extensors of the hand and wrist is absent.

March 17th, 1866.—He called at the Hospital to-day. He has worked at his trade since last August, without inconvenience. Motion in the extensors of hand and wrist has returned perfectly. The humerus is perfectly firm and free from pain.

Remarks.—The union of the musculo-spiral nerve, which was completely divided and brought together by suture of the neurilemma, with restored function, is a point of great interest.

Case 9.—*Humerus.*—T. G., labourer, aged 26, entered the hospital, June 12th, 1865. A year before he was thrown from a hand-car, one wheel of which passed over the middle of the right humerus, inflicting a compound fracture. The arm was placed in an inside angular splint, and kept in position for six weeks. The external wounds healed readily. At the end of this time, the arm was again broken at the original point of fracture and never again united.

June 21st.—Professor Bigelow made an incision, three inches long, on the outer aspect of the arm, over the seat of fracture. The musculo-spiral nerve was then sought, carefully dissected in its sheath from the bone, and turned aside. The periosteum was stripped back from the end of each fragment. A piece, half an inch long, from the lower, and three quarters of an inch from the upper bone, was sawed off. The ends were then drilled on the outer side, and a silver wire passed through; the ends of the bone were placed in apposition, and the wire twisted by four half turns. The arm was placed in the same apparatus as that used in the previous case. The edges of the wound were brought together by sutures.

23rd.—Apparatus re-applied. The bones are in good position. Some œdema of the arm.

27th.—Suppuration is established. R. Calcis phosphat, gr. x., three times a day.

July 3rd.—The arm is much swollen about the wound, and covered with an erysipelatous blush. He complains of some headache and nausea. R. Quiniæ sulphat., gr. ij., three times a day.

10th.—The swelling and redness have disappeared. No union at point of fracture.

28th.—An outside angular splint was applied, the arm supported by a leather sling, and he was allowed to sit up.

August 7th.—Apparatus removed and re-applied. There is slight stiffening at point of fracture.

22nd.—Only slight motion can be detected in the humerus.

September 11th.—The arm is stiff, but he complains of pain at the seat of fracture when it is examined.

November 4th.—All discharge and soreness having disappeared, and the humerus being perfectly stiff, a pair of

* Gentlemen who may be willing to furnish reports of cases of ununited fracture to be included in this special report, will oblige by forwarding them immediately to the Editor of the Hospital Report Department, 20, King William-street, Strand, London, W.C.

curved scissors were thrust down, the wire cut close to the bone, and easily withdrawn.

December 15th.—The humerus is firm. Discharged, well.

Case 10—*Humerus.*—W. M. W., carpenter, aged 33, entered the hospital January 26th, 1866. He was wounded with a Minié ball at the battle of Gettysburg, and suffered a compound comminuted fracture of the right humerus. July 5th, the bone was resected and about three inches removed. The wound healed in five months after exfoliation of the sawn extremities of the humerus. No attempt was made to keep the bones in apposition, and no union was obtained. He resumed duty and served out his full time with his regiment. The wound has never re-opened or caused him any trouble. Now several inches of the middle of the right humerus are gone, and the two extremities can be felt, pointed and considerably absorbed. The whole arm is quite small from disuse. The motion in the shoulder and elbow is perfect, but the arm hangs useless from the loss of substance in the shaft of the humerus.

January 27th.—Dr. Hodges, on behalf of Prof. Bigelow, operated as follows:—The patient having been placed under the influence of ether, a longitudinal incision was made over the ends of the fragments. The end of the lower fragment was then everted; the periosteum was carefully detached for a sufficient distance and turned back, and half an inch was sawn off from the end of the bone, which was firm and healthy. The upper fragment was treated in the same way, but the end, three quarters of an inch of which was removed, was degenerated and quite soft. These ends were then drilled; silver wire was inserted and the ends approximated, leaving a small interval to allow slight movement. The periosteum was returned to its place, a few vessels were tied and the external wound partly closed by sutures. The arm was placed in an internal angular splint. Water dressing.

30th.—The arm is in excellent position. Suppuration is beginning.

Feb. 21st.—A large abscess above wound evacuated itself to day.

March 11th.—He walks about every day. Apparently some stiffening at the point of fracture.

17th.—An abscess is forming on the inner aspect of arm.

20th.—The abscess was opened and discharged freely.

31st.—The humerus is quite firm. He was discharged to day, to return once a week.

April 27th.—Scarcely any motion can be detected at the point of fracture.

May 23rd.—An incision was made down upon the wire, which was cut and withdrawn. The union of the fractured ends is firm. The apparatus was removed. Patient returned to work.

Case 11—*Humerus.*—P. M., labourer, aged 23, entered the hospital, January 12th, 1867. He was wounded at the battle of Cedar Mountain, 1862, by a musket ball. The left humerus was shattered at a point a little above its middle. The small pieces of bone were removed; the ends sawed off and the fragments approximated. Six months later there was no union; the ends were again sawed off and the bones wired together. At the end of two weeks the wire was removed. In October, 1864, a number of pieces of necrosed bone were removed from the seat of fracture; there was no union. In November, 1865, he entered the hospital. The left humerus had a false joint at its middle. There was necrosed bone at the bottom of a couple of sinuses in the lower fragment. An incision was made over the fracture; the periosteum reflected and the ends of the bone sawed off. In March, 1866, there was no union. March 31st, the periosteum was detached from both fragments for a sufficient distance; about one and a half inches was sawed off from the lower and one inch from the end of the upper fragment. The ends were drilled, silver wire inserted, and the fragments placed in apposition. The periosteum was then replaced and its edges united by sutures. April 28th, the arm had stiffened at the point of fracture. June 10th, he fell upon the arm and broke it. July 15th, he was discharged with an ununited fracture, to return when the arm looks and feels better.

January 12th, 1867.—Patient was etherized. An incision, three inches long, was made over the outer aspect of arm and carried carefully down to the point of fracture. The two ends were found to be much roughened. Great difficulty was experienced in everting the ends of the now short fragments and in detaching the periosteum. The bone was finally separated from the periosteum for a sufficient distance, and a piece, one inch long, sawed from the upper, and one, three quarters of an inch long, from the lower fragment. The lower fragment was two inches in diameter; the upper one was of normal size but with fatty degeneration of the marrow. A hole was drilled through the sides of both fragments; a silver wire was inserted; the ends were placed in apposition and the wire twisted. The periosteum was replaced and its edges united by sutures. The external wound was partly closed by sutures. A folded towel was placed in the axilla to lift out the short upper fragment, and the arm secured to the side, the forearm across the chest.

13th.—There is almost complete paralysis of the extensors of the fingers of the left hand. No nervous trunk was known to have been divided in the operation, and the paralysis is perhaps due to a compression of the nerve in very forcibly everting the shortened fragments.

21st.—The arm was placed in an apparatus, which consists of a firm cap about the shoulder, secured by a strap around the chest; this is made firm by two steel bridges to a splint that invests the forearm like a coat sleeve.

27th.—Arm remains in position. Power of extension returning to the fingers.

Feb. 3rd.—Wound diminishing. Granulations healthy.

6th.—℞ calcis phosphat., gr. x. t. d. s.

March 4th.—Took some walking exercise.

April 16th.—Quite firm at point of fracture. Flexes and extends forearm easily.

22nd.—Discharged.

Notes.—The humerus was in this case considerably shortened by the successive operations. At the time of his discharge it measured seven inches less than the opposite one. Yet, the biceps and triceps acted freely, proving that a greatly shortened humerus is much more useful than one in which a false joint exists. A perusal of this case alone is sufficient to encourage surgeons in repeated attempts to bring about long union. This, however, is a point which can be discussed in a summary after other modes of treatment have been illustrated.

JERVIS-STREET HOSPITAL, DUBLIN.

A CASE OF SEVERE INJURY OF THE EYE, WITH PROTRUSION OF THE VITREOUS HUMOUR.

Under the Care of Dr. AUSTIN MELDON.

(Reported by Mr. HENRY C. KELLY.)

M—— R——, a delicate looking girl, aged 14 years, was admitted into Jervis-street Hospital on the 13th of August, suffering from a severe wound of the left eye. She stated it was produced by a stone thrown at her. On examination it was found that the conjunctiva and sclerotic had been lacerated, and that the vitreous humour protruded through the wound, the acqueous humour having entirely escaped. Sight was completely lost. Dr. Meldon having reduced the hernia with a probe, endeavoured to keep the lips of the wound together with a fine suture, but the conjunctiva was so lacerated as to render this impossible, consequently the eyes were closed, and a small pad placed over the injured one. Two leeches were applied to the external cauthus, and the patient was put on small doses of hydr. c. creta.

On the 15th the conjunctiva was much inflamed, and

the patient complained of great pain. Four leeches were applied.

On the 17th the pain had subsided, there was a purulent discharge.

On the 20th the hernia seemed much diminished, the conjunctivitis less, and the patient was able to distinguish objects. From this date she progressed favourably, and has now recovered almost perfect use of the eye.

Reviews.

CHEMICAL PHYSICS: Part I. of the Elements of Chemistry. By WILLIAM ALLEN MILLER, M.D. 4th edition. Longmans, Green, Reader, and Dyer. London. 1867.

DR. MILLER'S Chemistry is so well-known to scientific men that a list of the changes introduced will be a sufficient description of this edition.

The new system of atomic weights, and the method of notation dependent thereon, is used. The use of barred letters (introduced into the last edition of the "Organic Chemistry") has, however, been judiciously discontinued. The employment of the metric equivalents to the English weights and measures, and the introduction of the centigrade value for degrees of temperature are some of the changes observable. Descriptions have been introduced in their proper place of the researches of Deville, and of Graham, upon the permeation of metallic septa by gases at elevated temperatures.

The experiments of Gladstone, Dale, and by Landolt, upon the connection of the optical properties of bodies, with their chemical composition. The section upon spectrum analysis has been re-written. Also, some account of the British Association standard of electrical resistance, as well as the machines of Holmes and of Wilde, for producing light by magneto-electric currents, will also be found in their appropriate places.

"Chemical Physics" must mean, according to our ideas, such parts of the physical sciences that have a practical bearing upon chemistry—means towards the working out of a particular end—and that end, the study of the combination and decomposition of the elementary and compound matter. Therefore, we see a little inconsistency in the fact that many of the principles which are of immense practical use to the chemist are meagrely disposed of; whilst more than one-third of the volume is devoted to electricity and magnetism. It seems as if the author luxuriated in electric science. For instance, the science of optics is of much more importance to the chemist engaged in original research, and affords means to the chemist of extending his researches in a path which, without such aid, would be unapproachable. The action of organic substances (alkaloids and hydro-carbons) in connection with circular-polarization; also, the absorption-spectra of Prof. Stokes, are but a few of the many points bearing upon what we have stated above. Therefore, we should be pleased to see a larger space devoted to these points, although we ought, perhaps, to make an exception to spectral analysis, and the investigations of Kirchhoff, Bunsen, Miller, and others connected therewith, which are given at some length.

The difficulty in drawing the line of distinction between physics and chemistry is evidenced even in the definition given by Dr. Miller.

"In indicating the physical properties of sulphur, we refer to its brittleness, its crystalline structure, its faint peculiar odour, its yellow colour, its semi-transparency, its electrical excitability, or the facility with which, if rubbed, it exhibits electrical attraction and so on. But in describing the chemical properties of sulphur, we indicate its inflammability, its tendency to unite with silver or copper when heated with it, *its insolubility in water and alcohol, its solubility in oil of turpentine*, and in alkaline liquids. In short, we notice those operations by which the body usually becomes changed and loses its distinctive physical character."

Now, it is self-evident that the chemical properties given in italics (the italics are our own)—*i.e.*, its solubility or insolubility in liquids—is strictly a physical property, solubility being nothing but a state of attenuation.

Dr. Miller appropriately closes his volume by a *resume* of force, its transformation and indestructibility, or, as it is sometimes called, the correlation of the forces.

It is difficult to close this short notice of the important work before us without giving some meed of praise. To bestow the usual stereotyped phrases would only be an insult to the author of what is certainly, taking it all in all, the most successful "Elements of Chemistry" in our language.

It is a work teeming with information, and touches upon almost every point essential to a succinct elaboration of the science.

C. R. C. T.

VIA MEDICA: A Treatise on the Laws and Customs of the Medical Profession in relation especially to Principals and Assistants, with Suggestions and Advice to Students on Preliminary Education. By J. BAXTER LANGLEY, M.R.C.S., F.L.S. London: Hardwicke, Piccadilly.

THE utility of a small manual on such a subject as this is so obvious that we may well feel some surprise that no attempt worth mentioning has hitherto been made to produce one. We hasten to announce the publication of this handsome little volume, because at this period of the year, when so many are pondering their entry into the profession, it is of double interest, and also because the author has enjoyed peculiar opportunities for fitting himself for his task. Our own "Students' Number," will, next week, place in the hands of those about to begin their hospital career, a large amount of necessary information, as to the Session of 1867-8. Mr. Langley's work takes a wider sphere and will be of more permanent interest. He takes the medical pupil, before he begins hospital work, and follows him, after he has finished it, into the active duties of the profession, whether as an assistant or principal. Hence, he has the opportunity of giving hints, the value of which cannot be conveyed in a brief notice like this, as to apprenticeships, assistantships, partnerships, and many other points in a medical career; and these hints, it should be remembered, come from one whose peculiar experience entitles him to speak with considerable authority. On a future occasion we propose to examine with care, some of the recommendations contained in Mr. Langley's work. In the meantime we announce its publication, and in default of space to analyse it at length, furnish those interested, whether parents, guardians, or students themselves, with an outline of some of its contents. Having discussed the several ranks in the profession—the physician, surgeon pure, apothecary, and general practitioner in their several relations. Mr. Langley passes on to assistants. In this chapter he speaks of the pupil with indentures, the apprentice, the dispenser, the unqualified assistant, the "indoor" and the "outdoor" assistant, the prospects of unqualified and qualified men, the present educational position of young men. and the *locum tenens*.

Then follows a very useful chapter on the legal relations of the parties, in which the following items are set forth:—How a legal engagement is made, assistants and partners, what constitutes a partnership, notice to leave and leaving without notice, liabilities of assistants, dismissal, liabilities of principals, apprenticeship, maintenance, indoor assistants, outdoor assistants, formal agreements and bonds not to practice, death, of employer, mutual liabilities of the parties, testimonials and references, libels, &c.

There are many of these points on which we might advantageously dwell, but we pass on to others equally important.

Mr. Langley next devotes a chapter to the business relations of the parties. In this he shows how engagements are usually made between principals and assistants, treats of advertising, and of agents, of ship appointments, and of assistantship with a view to partnership.

The fifth chapter is entitled Duties in the Surgery, and is perhaps the most important of any, treating as it does of many subsidiary duties as they are sometimes regarded, but the efficient discharge of which, is necessary to the proper conduct of a practice. We commend this chapter as particularly calculated to promote the comfort of both principals and assistants. In it we find remarks on the basis of the mutual contract between the parties, the source of quarrels between principal and assistant, what the assistant is expected to do, dispensing, stock-keeping, the visiting list, the day-book, routine of work, book-keeping, bad writing, the ledger, "posting," making out bills, receipt of accounts, the cash-book, the necessity of systematic arrangements, druggists' invoices and parcels.

The work concludes with a chapter on Preliminary Studies, a consideration of which we must defer.

DAVY AND FARADAY.—"The greatest discovery you ever made," said President Gilbert to Sir Humphrey Davy, "was the discovery of Faraday."

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 11, 1867.

THE SEWAGE OF GREAT CITIES AND TOWNS.

Having alluded in a previous number to some of the difficulties and disadvantages attendant upon the present main drainage system of London we would now offer some observations upon that most important question—the arrangements for the conveyance of, and ultimate disposal of the sewage of cities and towns.

Ancient Rome is generally understood to have set the example of combining house and surface drainage. But that famous city offered facilities for such a system, possessed by comparatively few cities of importance in the present day; and it must be confessed that it neither achieved a neighbourly nor a wise act in polluting the Tiber, and in sacrificing the valuable manure intended by nature for the renovation of the earth. It is very true that benefit arose from the nature of the construction of the great sewer of uncemented stones, as it was the means of converting a marsh into a good building site; it also accomplished the complete removal of the sewage from the vicinity of the city, inasmuch as Rome was built on the banks of a deep and rapid river, and as Rome was sufficiently far from the almost tideless Mediterranean to permit of a rapid current, and as the aquaducts, fountains and baths, kept the Cloaca Magna free from deposit matters, the discharge of the sewage proceeded without the evils attendant upon silt. Modern cities have too often followed the example of Rome, without having fully considered the effect of estuaries and tidal rivers, of want of sufficient fall, and the wholly altered state of affairs, when pumping is required. Under such circumstances it is evident that the deposit of earthy, and organic matters that are merely suspended in sewage, will continually proceed to the frequent and serious derangement of the sewers, especially at times of heavy floods.

Moreover, the deposit of silt at the outfalls of the main sewers, which has already attained to formidable proportions, becomes another serious objection to the main drainage system; inasmuch as in the case of London, though the offensive matter and the silt from surface drainage has been moved with a partial success some distance lower down the river the formation of bars and shoals in the navigable channel becomes a question of vast importance to the commerce of the metropolis.

We have on previous occasions pointed out, in the pages of the Medical Press and Circular, the great care taken by the Chinese in saving for agricultural purposes that which we throw into our watercourses. Some Continental towns have also for a long period used the cesspool system, combined with emptying by means of a vacuum chamber. This system, however, permitted the lodgment of (and therefore, of course, leakage from) large quantities of sewage for months, or even years. The plan of Captain Liernur, of Holland, who with Mr. Petersen, the city engineer, has been occupied in applying a new system to a special district of the Hague, where the low level renders any ordinary system of sewage impracticable, appears to meet all these objections, inasmuch as it obviates all risk of leakage, and prevents the evils of accumulation.

We will quote Mr. Adam's description of it:—

"The principle consists in discharging the fluids and solids through a large opening without a bottom, or valve, so that they may fall into a vertical pipe of cast iron, forming a curve or syphon in the ground, both ends of the pipe being open, the upper one above the house roof, and the other in the drain-pipe in the centre of the street, where they intersect each other.

"At the intersection is placed underground, an air-tight wrought-iron vessel, some five feet in diameter, and three feet in height, and this vessel receives four drain-pipes from the streets. A stand from this reaches nearly to the bottom, and rises to the level of the street. The whole system is air-tight. A portable or traction engine is run over the opening of this pipe, and a vacuum is formed by an air-pump worked by the engine. Air-valves are then opened in succession to every house connected with the cistern, and the atmospheric pressure drives both fluids and solids out of the closet pipes into the cistern. From this the exhaust carries it into a close barrel, or tank, on the engine, and it is taken away to a railway station, or wharf, where it is discharged into barrels by a similar process for transport to cultivated lands, the dwellers in the houses knowing nothing of it, save that they have no fermented gases, and that the whole of the closets are swept out every night by a strong current of wind, while there is no valve to pay for, or leaky pipes to overflow. The whole of the pipes are of one dia-

meter, about five inches, and there is, therefore, nothing to stop the free passage of anything that gets into them, &c."

Were this means to be adopted in London, it would employ some 2000 labourers, and 300 steam engines, and return a money value of some £1,500,000 in manure annually. But then the great question is, would it be successful in freeing the metropolis from the nuisance? We must revert to this important subject in a future number.

Notes on Current Topics.

THE COMING EXPEDITION TO ABYSSINIA.

Unless the cruel tyrant who has obtained power in Abyssina shall in the meantime be cowed by the rumour of the approaching invasion, next November will see a small army landed on the coast, and marching towards the interior. The preparations are being made in all haste, and from the interest that will attach to the expedition, and the publicity afforded by the press to many details, we may hope to escape some of the disasters that have too often happened. Considering that the contest will be rather with nature than with the tribes who may rally round their oppressor, Theodore, we should have been glad to see further indications of preparations to overcome the difficulties of climate and inaccessible localities. Speaking as civilians, we venture to dispute the propriety of attempting to transport even the very light artillery now being manufactured for the purpose. We want to march 10,000 men through 300 miles of African jungle, and we proceed to lade them with guns and gun-carriages. This, according to our officials, involves mules and camels, the number of which is to equal the number of fighting men. Now, from what we know of the climate, it is very doubtful whether either the mules or camels can endure it. It is quite certain that oxen would be more likely to do so.

If the worst happens, and the mules and camels fail in any considerable number, what will become of the cannon? Will the soldiers turn back and give up the task assigned them for want of artillery? We believe not. If they can transport food and water, for their is no security of finding either on the way, we doubt not they will persevere and leave the guns behind. They will get on better without them. What they will most need will be beasts who will carry food and water, and the ox is the most adapted for the purpose. The fight will be, as we have said, with the climate, and the inaccessibility of the country to be reached. Our Indian medical officers have a vast experience of the acquirements for such a campaign, and the first steps should be to double the number of medical officers, and provide an unlimited supply of medical comforts. The Army Medical Department should be consulted at every step, and have a veto on every arrangement. Its authority ought to be absolute. The greater the power entrusted to the Medical Department, the more complete will be success. Our Chinese expeditions ought to have impressed this lesson on the military authorities, but who would expect foresight or prudence from men who, in a time of profound peace, send out to the Mauritius, while desolated with yellow fever, a fresh regiment of soldiers? When another holocaust to the would-be gods of the Horse Guards shall have been sacrificed in Africa, an attempt will be made to divert the indignation of the people to the Medical Department. We, therefore, urge upon the Director-General of that department to insist in time upon his advice being implicitly followed, or at once publicly proclaim that he is thwarted. We believe the country will insist upon proper regard being paid to the Medical Department.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

The correspondence in reference to the resignations of Drs. Richardson, Leared, and Powell from their connection with the Chest Hospital, to which we devote a portion of our space this week, justifies us, as we think, in the observation that "if the disclaimer of these gentlemen was only elicited by newspaper strictures, it is worth very little." The voluntary martyrdom of these gentlemen at the shrine of medical etiquette, bears a different aspect in presence of the fact, as stated by Dr. Dobell, that neither the quarrel itself nor the alleged practices which have called forth the resignations, are recent occurrences. It may even be creditable to these gentlemen that they have so long endured the defilement of their sanctity by Dr. Dobell's practices, but if the affair turns out to be a mere personal squabble about the exclusion of Dr. Powell from the office of Physician to the Hospital, the honour and glory of such self-immolation is considerably lessened. Whether it be strictly right for Dr. Dobell to print his name on the dietary labels, as is done elsewhere, is a debatable question, but the offence does not appear to us so heinous as to justify his colleagues in publishing, without seeking redress at the hands of the Council, statements which might have proved most injurious to the reputation of the hospital with which they were connected.

Dr. J. Stannus Hughes, Professor of Surgery in the Royal College of Surgeons in Ireland, Surgeon to the Lord Lieutenant's Household, and Jervis-street Hospital, has been appointed Consulting Surgeon to the Coombe Lying-in Hospital, in room of the late Andrew Ellis, Esq.

THE PUBLIC HEALTH.

The Registrar-General's returns for last week show an increase in the mortality from diarrhœa in nearly all the large towns, especially in Manchester, Birmingham, and Sheffield. The total mortality of London was 1288. The corrected average for the corresponding week is 1269. We consequently again have an excess in the death-rate—this time an excess of 19. The deaths from diarrhœa were 226; from cholera, 22. Last year the deaths from these diseases in the corresponding week were 128 and 198. The annual rate of mortality for the week was 22 per 1000 in London, 22 in Edinburgh, and 21 in Dublin; 20 in Bristol, 32 in Birmingham, 30 in Liverpool, 32 in Manchester, 29 in Salford, 28 in Sheffield, 26 in Leeds, 25 in Hull, 40 in Newcastle-upon-Tyne, and 22 in Glasgow. Of the above rates from all causes, the following proportions resulted from diarrhœa:—4 per 1000 in London, 6 in Liverpool, 9 in Sheffield, 11 in Manchester and Salford, and the highest—12 per 1000—in Birmingham. In Newcastle the mortality showed a further considerable increase upon previous weeks, while in Leeds the mortality from all causes, but more especially from diarrhœa, had sensibly declined. Dr. Frankland's analysis of the water supplied by the water

companies of London in the month of August appeared in last week's MEDICAL PRESS AND CIRCULAR.

WORKHOUSE DIETARIES.

SOME time ago we devoted a lengthy article to this subject, in which we laid before our readers the important labours and the practical conclusions of the Metropolitan Poor-law Medical Officers' Association. That body, as our readers are aware, have adopted a dietary on a much more liberal scale than that of Dr. Edward Smith, which they have criticised with great ability and practical good sense. Moved by the interest excited in the question, we now proceed to summarise these statements of Dr. Edward Smith. In doing so we shall make use of his official communications to the Poor-law Board, abbreviating them as far as possible, but, we trust, without the least misrepresentation. Our object on this occasion is not criticism. We only wish to furnish our readers with the most complete information. Those most interested in the question will be sure to compare for themselves the two scales proposed by these two authorities, and both of which will, in this manner, be ready to their hands. Considering the simple and uniform character of the food, and the large proportion of aged inmates unable to masticate, Dr. Smith first of all urges the necessity of a skilled cook, if possible, one trained in some such a place as the cheap dining halls of Glasgow or London. Next, he considers that the matron should be held responsible for the proper discharge of duty by the cook; that she should make herself thoroughly sure that the food is cooked so well as to secure its nutriment, and that its flavour is agreeable.

He adds, that for the sick inmates more skill is needed; and the nurses ought to be able to prepare the food, and that *near the sick wards.*

The distribution of the food is a matter of importance. The master and matron should superintend it: in the sick wards, the head nurses. It is particularly desirable that it should be served hot, and, to secure this end, hot utensils should be employed in the carving, weighing, and distributing. In carrying it from the kitchen to the dining-hall suitable apparatus should be used to prevent its getting cold. In all cases in which the infirmary is a separate building there ought to be a kitchen within its walls. In a subsequent report Dr. Smith says that

"In the construction of workhouse dietaries, it is necessary to bear it in mind that the subject is not only a medical and scientific, but a social one, and that, whilst the food provided must be adapted in quantity and quality to maintain health, it should not materially exceed, in either of these particulars, the food which is obtained by the labouring classes at their own homes. The sanitary considerations may be dealt with without difficulty; but the social have always been matter for discussion and diversity of opinion, since the standard is a varying one, and the views of those who seek to apply are varied also. Hence, any attempt to establish an uniform dietary in substitution of the very diverse dietaries which now exist, cannot at first meet with the concurrence of all persons; but as it is very desirable that this object should be effected, it will be prudent to select those classes of dietaries respecting which there is the least diversity of opinion, and, without sacrificing any principle, to pay a due regard to the views both of the minority and the majority.

"For the first, I suggest that the proposed uniform dietaries should be limited at present to those for the aged and infirm, since there is now, in some particulars, an approach to uniformity in them, and they refer to a class of persons who, for the most part, are unable to obtain a living by their labour, are permanent residents of workhouses, and are commonly allowed to be fit objects for the relief afforded under the Poor Law Administration. For the second, I suggest that it would be undesirable to altogether set aside the principles which have been the guide of guardians from the earliest period of the Poor law organization; but whilst affording food in every respect well fitted for this class of persons to still maintain some distinction between it and that which is usually provided in private houses.

"Limiting myself, therefore, to the dietaries for the aged and infirm, I am of opinion that two schemes will be necessary in order to comprehend the whole, viz.: an ordinary one for all persons above 60 years of age, who are in ordinary bodily health, and a medical one for that large proportion who, from infirmity and decreasing strength, are now placed by medical officers upon their books solely in order to obtain for them a suitable dietary.

"The former would correspond to the ordinary workhouse dietaries for the aged, whilst the latter is in use at present in two or three workhouses, and is required by the medical officers universally.

"The dietaries which are in actual use amongst the aged in these workhouses have already been published by order of the House of Commons (No. 433, Sess. 1865), and that return shows the various combinations of food which constitute the meals on the several days of the week. From this we learn that tea, with bread, or bread and butter, is given in a majority of the metropolitan workhouses for breakfast and supper. Three dinners weekly of meat and potatoes are given in more than three-fourths of the workhouses, and four or five such dinners weekly in others, besides foods on some other days which contain meat. Soup is supplied on two and three days weekly each in nearly half, and suet pudding is given once a week in more than half the workhouses. The only remaining food for dinner which it is needful to cite is cheese, and in only three workhouses is there a bread and cheese dinner.

"With regard to the minority there is considerable diversity in the food provided, but the frequency with which the chief foods are given, will suffice to show the views of the majority, and will be of use in any attempt to frame an uniform dietary for the whole.

"The following is the scheme which I recommend in reference to both divisions of this class:—

DIETARY FOR THE AGED AND INFIRM.

1.—*Ordinary.*

Breakfast and Supper. — 1 pint of tea or coffee, with ½ oz. of suggar and 1 oz. or two oz. of milk. 5 oz. of bread, and ½ oz. of butter.

Dinner.—Four days weekly—4 oz. of cooked meat without bone; 10 oz. of potatoes; 3 oz. of bread.

One day weekly—14 oz. of meat and Potatoe pie; 3 oz. of bread.

One day weekly 1¼ pint of soup; 4 oz. of bread; 1 oz. of cheese.

One day weekly—12 oz. of suet pudding, 3 oz. of bread, 1 pint of broth.

2.—*Special or Medical.*

Breakfast and Supper. — 1 pint of tea or cocoa, with ½ oz. of sugar and 1 oz. or 2 oz. of milk. 5 oz. of bread and ½ oz. of butter.

Dinner.—Six days weekly—4 oz of cooked meat without bone, and 10 oz. of potatoes, with three oz. of bread on four of these days, and 4oz. of suet pudding, with vinegar and treacle sauce, or 8 oz. of rice pudding on the other two days.

One day weekly—14 oz. of meat and potatoe pie, or meat pudding; 3 oz. of bread.

Seven days weekly—½ pint of beer, if specially directed by the medical officer.

"In each of these dietaries mutton alone, or with beef, should be given twice a week, and once or twice a week the meat (in addition to that in the pie) should be roasted or baked.

"All aged and infirm inmates would be placed, at first, upon the ordinary dietary, and the medical officer should then place such of them upon the medical dietary as he may deem to require it, and, having done so, they would so remain until he directed otherwise. The names of such inmates need not be repeated in the medical officers books. He may also use it as a sick dietary for persons of all ages at his discretion."

Dr. Smith adds that the scale here proposed is adapted for both sexes, as he would not, at the period of life in question, reduce it for females.

OBITUARY NOTICE.

MICHAEL FARADAY.

ON Sunday, August the 25th, the world lost one of its greatest chemists, and England one of its richest ornaments. As he was approaching an octogenarian we could not expect to have him much longer amongst us. He had retired from public life for some considerable time. His

death, therefore, will merely *remind* us of the loss of the great chemist, whilst we cannot but sincerely regret the parting from a worthy man.

Though it is our custom to chronicle the decease only of members of our own Profession, and unusual to make any outside the pale the subject of editorial remarks, the present exception is one for which we offer no apology; for, though not of us, Faraday was so intimately connected with us that a brief notice of so illustrious a master of science, who has just quitted the scene of his labours will not be out of place in our columns. Born of humble parents in September, 1791, with a meagre education at an ordinary day-school—Michael Faraday entered life, and at the age of thirteen was apprenticed to a book-binder—a trade one would suppose not very likely to foster a taste for scientific pursuits. Still, under the most adverse circumstances, "nature will be nature still," and so, in the spare moments between the monotonous duties of trimming and binding, and his humble home, this poor lad found time and materials to gratify his innate thirst for knowledge, till, like that wonderful science, of which he may be said to have founded, the smouldering embers burst forth into a flame, at first pale and uncertain—seeking to shine, yet with an instinctive knowledge of its own diminutiveness—until, reduplicative with an impulse of its hidden worth, it broke out in a refulgence so bright and glowing that pet idols of past generations paled before, and fell never to rise again.

At the age of nineteen we find him assistant in the laboratory of the Royal Institution, to which post he had been transferred from the book-binder's bench through the kindly influence of Sir Humphrey Davy, then at the zenith of his fame in the world of science. How remarkable were the means the young aspirant adopted to gain for himself this influence! He had been privileged to hear some lectures delivered by Sir Humphrey, and taking some very voluminous notes, he sent them to the lecturer, with the modest request that he would interest himself to free him from what he considered the bonds of trade, and give him some scientific employment. At first sight this request appears rather presumptuous, but let us weigh it with his after-life and we shall readily acknowledge that he whom even royalty delighted to honour, had not a thought of arrogance or conceit when it was made.

In the sphere so congenial to his tastes we find him working side by side with his patron, whom he afterwards accompanied for seventeen months in his travels on the Continent for scientific research, as amanuensis and assistant. In April, 1815, he returned with him to his post in the laboratory at the Royal Institution, from which time to the day of his death he was never again separated.

With mental powers of the highest calibre, an ability to grasp and reduce abstract ideas to moral certainties, aided by the tuition of Sir Humphrey Davy, he pursued his arduous studies with an indomitable perseverance which could brook no conquest and yield to no defeat. He disclosed the first fruits of his future greatness by the discovery of that valuable and interesting substance, chloride of carbon, and a little later by his practical demonstrations, on the condensation of gases into liquid form. At this latter discovery, we are told, even Sir Humphrey Davy displayed signs of jealousy of his protege, showing it so unmistakeably as to recommend Faraday's non-election to the Fellowship. His genius, however, survived all opposition. Subsequently we find him engaged in some elaborate researches on a new method in the manufacture of glass for optical purposes, on "the composition of steel, and its effects when alloyed with other metals;" and, again, more especially those celebrated papers on "Electricity, magnetism, and galvanism," and their reciprocal relation to the laws of natural science. The sensation which these papers created must be fresh in the memory of many of our readers, and the attention they received from the heads of all the scientific bodies both at home and abroad, fully proved that they bore upon them the impress of a mind and pen alike, we had almost said, inspired. These have been handed down to the present, and to generations yet unborn, they will reveal the grasp of an intellect almost unparalleled.

At this period of his fame honours were profusely showered upon him. He was elected Fellow of the Royal Institution, Doctor of Civil Law of Oxford, Associate of the Imperial Academy of sciences at Paris, Commander of the Legion of Honour, Knight of the Prussian Order of Merit, Professor and Lecturer to the Royal Institution, Lecturer at the Royal School in Woolwich Arsenal, besides being made the recipient of several other distinctions, amongst which we may notice a pension of £300 annually for scientific researches from Government, and the gift of a house, in which he died, at Hampton Court, by Her Majesty the Queen.

In 1813, the book-binder's apprentice, to whom the churlish Sir Joseph Banks would not condescend to reply, communicated with Sir Humphrey Davy. The pompous knight approached him stiffly, but kindly. In 1867, the book-binder's apprentice dies loaded with honours. He always signed and spoke of himself as plain "Michael Faraday." M. St. Claire Deville (no mean authority) writes of him in one of his books "Michael Faraday is the greatest scientific figure of his time." "The greatest discovery you ever made," said a well-known friend to Davy, "was Michael Faraday."

Electro-magnetism may be considered as a science entirely constructed by Faraday's discoveries.

As a lecturer, we should not consider him eloquent. Yet there was a clearness and soundness in his views, a persuasive simplicity of argument, and a skilful manipulation of the scientific appliances with which he sought to illustrate his subjects as gave him a power over his audiences, at all times large, that the most graphic orator might have envied. It was a sort of mystic spell, a crucible of flame, which for hours could keep an assemblage of scientific and critical observers literally enchained, and then send them away with evidences of gratification depicted on their countenances, that they had, like the Athenians of old, "seen and heard something new."

Almost his last public work was the delivery of his celebrated juvenile lectures at the Royal Institution which, we believe, he continued up to the year 1860. His great vigour of mind was evinced in the simplicity of these lectures; as he expressed it himself, he returned to second childhood, and became, as it were, young again amongst the young. The correlation of the physical forces became, from his mouth, a fit subject for a Christmas lecture to boys and girls. Although he always addressed himself to the young part of his audience, the remainder included nearly the whole of the London *savants*.

In the person of Michael Faraday, we find a connecting link between the men who first constructed chemistry into a science, and modern chemistry with its present *radical reformers*. The adopted pupil and assistant of Sir Humphrey Davy, he lived to see the radical doctrines of the science all changing.

And now this great, this self-taught philosopher is no more, and with him has perished the last direct link of a family, distinguished by the genius of this individual member, which will for ever bind the name inseparably with all that is great and noble. He has left a widow to lament his loss; but neither children, brothers, nor sisters, survive him. Yet of mourners how many? how many alas! even in our own profession, look upon his death as an irretrievable loss; whilst the world at large have lost in him a willing and devoted slave to science, one who has done more to enoble her, than, perhaps, any other on record, unselfish in every respect, and disinterested to the very core.

For more than two years he has been compelled to renounce active pursuits, his faculties, once so bright, gradually yielding to the tide of time, left him quite unconscious for months past of all around him: he died on the 25th August, in the seventy-sixth year of his age; revered

in life, the wise and learned of our own profession, and those in other branches of that field of science, on which he had fought so many battles and gained so many laurels, hastened on Friday last from far and near to do honour to their champion in death, by following his remains to the grave.

With some few isolated papers, the following are Faraday's principal writings :—

"Chemical Manipulation: being instructions to Chemical Students in the method of performing Experiments of Demonstration or of Research with Accuracy and Success." Three editions of this book have been published; the first appeared in 1827.

"On the Practical Prevention of Dry Rot in Timber." Published 1833.

"Experimental Researches in Electricity." Volume 1. Published in 1839. Contains fourteen series of "Experimental Researches," which were published in the "Philosophical Transactions" in 1831-38.

"Experimental Researches in Electricity." Volume 2. Containing all the Papers on the Subject printed in the "Phil. Trans.," the "Phil. Mag.," and the "Quarterly Journal of Science," in 1838-43.

"Experimental Researches on Electricity." Volume 3. Containing Reprints from Papers communicated to "Proceedings of Royal Institution," the "Philosophical Transactions," and "Phil. Mag.," in 1846-52.

"Experimental Researches in Chemistry and Physics." Containing all the Researches in these Branches of Science contributed by him to the "Phil. Trans.," the "Journ. of the Royal Inst.," "the "Phil. Mag.," and other publications, in 1821-57.

Summary of Science.

(Specially Edited and Compiled for the Medical Press and Circular.)

By CHARLES R. C. TICHBORNE, F.C.S., F.R.G.S.I., &c.

[The Editor of this Summary wishes it to be understood that he is not responsible for the ideas, theories, or the correctness of the statements made in any of the papers quoted in this Compilation.]

GLYCOGENOUS SUBSTANCE OF THE LIVER.

M. Bizio showed some time since, that many of the invertebrated animals contained a glycogenic substance which is identical with that which is found in the livers of the vertebrated animals. This substance has a gummy consistency when dried slowly in the air after precipitation by alcohol—its ordinary pulverulent state being due merely to the rapidity with which it is usually dried.

The analysis, made upon the substance dried at 100° C, yields numbers leading to the formula $C_6\ H_{10}\ O_5$. But on the other hand, the same glycogen when dried in the air, agrees with the formula $C_{12}\ H_{22}\ O_{11}$, or better, $C_{12}\ H_{20}\ O_{10} + Aq$.

It is therefore a body analogous to dextrine and not to starch.—*Paris Correspondent of the "Laboratory."*

COMPOUNDS OF CHROMINUM AND SULPHOCYANOGEN.

These new salts are described by J. Roesler. They are very stable and beautiful compounds.

The chromisulphocyanide of potassium is almost black by reflected light, but ruby-red by transmitted—it is in the form of quadratic crystals. The following is the formula, which may be received as typical of the rest—

$$\left.\begin{matrix} Cy^{12} \\ Cr\ K^6 \end{matrix}\right\} S^{12} + 8\ H_2O$$

When heated with diluted hydrochloric acid in presence of ferric chloride, a blood-red colouration is produced. It is procured by boiling chrome alum and sulphocyanide of potassium together for some time, and precipitating the potassic sulphate by alcohol.

The ammonium salt (exactly similar to the above) is procured by dissolving precipitated oxide of chrominum in sulphocyanide of ammonium.

The soda salt is rather less stable. It crystallizes in thin leaflets, which lose water of crystallization on exposure to the air.

The Baryta salt crystallizes in short four-sided prisms of a deep ruby tint. It may be used for preparing many of the other chromisulphocyanides.

The silver salt is a brown-red precipitate.

Two lead salts are described. An attempt to isolate the acid by sulphuretted hydrogen failed.

OZONIZATION.

M. Schœnbein says that oil of turpentine polarises the atmospheric oxygen, and that what that chemist has termed antozonide of camphene is formed. This substance may be viewed as a sort of organic oxygenated water, whilst another part of the oxygen remains united to the hydrocarbon, and occasions résinification, and the production of formic acid. All the hydrocarbons comport themselves thus. Amylic, methylic, and ethylic alcohol, are able to produce oxygenated water in the presence of air and of the sun's rays.

If we add 75 gr. of alcohol to 25 gr. essence of turpentine, and the whole is agitated in a flask of large capacity, it will be found that in a few days, the liquid will blue a solution of bichromate of potassium.—*Bulletin de la Société Chimique de Paris.*

THALLIC ACID.

Carstaujen is said to have discovered an oxygen acid produced from the new metal, thallium. Thallic acid is formed when a current of chlorine passes through a hot saturated solution of potash, containing oxide of thallium in suspension. The liquid assumes a crimson colour. The solution may be evaporated and filtered through paper without decomposing. Acids decompose the new compound, setting free oxygen.

MOLYBDATES.

There are six series of these salts corresponding to the following formulæ—

$$MO,\ MoO_3 + nHO$$
$$MO,\ 2\ MoO_3$$
$$_3MO,\ _7MoO_3 + nHO$$
$$MO,\ _3MoO_3 + nHO$$
$$MO_4MoO_3 + nHO$$
$$MO,\ 8MoO_3 + nHO$$

NEW REAGENT FOR THE SALTS OF SODA.

M. Birnbaum describes the double sulphite of platinum and potash ($PtO.SO_2$, $3ROSO_2$, + 7HO.). This salt is prepared by passing sulphurous acid through a solution of sulphite of potash, holding hydrated oxide of platinum in suspension. The neutral solutions of soda salts (or feebly alkaline), give rise to a white precipitate.

Chloride of barium give also a precipitate containing all the platinum. It is soluble in hydrochloric acid. Hydrofluosilicic acid separates the potash.

THE ACTION OF CHLORINE UPON SILVER.

(By Professor Stas.)

If oxide, or carbonate of silver is suspended in water, and then diffused through an excess of saturated chlorine water, the silver is completely changed into chloride, and the water only contains (besides the excess of chlorine) pure hypochlorous acid.

By passing a slow current of chlorine, with constant agitation, into water containing an excess of carbonate of silver in suspension, the first act is identical with the above experiment, but the hypochlorous acid only remains momentarily free, it slowly transforms another part of the carbonate in hypochlorite of silver. Hypochlorite of silver is very soluble, and is stable in the presence of an excess of carbonate of silver, but is decomposed into chloride of silver, which deposits and chlorate of silver which remains in solution.

CRYSTALS IN THE BLOOD IN LEUKAMIA.

Professor Neumann, of Konigsberg, communicates a paper on this interesting pathological subject, to "Mar-

Schultze's Microscopical Journal." The formation of the crystals did not occur until long after the blood had been drawn; a large number of crystals were formed on each drop of blood. These were brilliant, delicate, symmetrical needles, which were found, on minute examination, to possess the form of an elongated octahedron. Some which appeared to be incompletely formed, represented merely a four-sided pyramid with a rounded base.—*Chemical News.*

THE REMOVAL OF OPACITY OF THE CORNEA.

Some very curious facts relative to the action of sulphate of soda on the cornea, are pointed out in a memoir just read before the French Academy by M. de Luca. It occurred to him that as sulphate of soda retains the fibrine of blood in solution, it might have the effect of dissolving away opaque portions of the cornea. At first he tried the experiment with solution of the sulphate in distilled water. The fluid he dropped into his patient's eyes, and the result was found to a certain extent satisfactory. Believing that the solid sulphate would produce still better results, and he employed it in the state of very fine powder; dropping it into the eye of the patient. This method proved to be most effectual. In one or two cases where the opacity was so decided as to produce nearly total blindness, a considerable amount of vision was restored.

ON THE ACTION OF CHLORIDE OF IODINE UPON SULPHIDE OF CARBON.

Trichloride of iodine is agitated energetically until cold, on sulphide of carbon. It produces a brown liquid containing chloride of sulphur, some acid liquids, chloride of carbon, and a crystallizable combination of chloride of iodine, and of chloride of sulphur. The same products are formed when the operator directs a current of chlorine into a solution of iodine in the sulphide of carbon. The quantity of chlorine absorbed is very large, and causes a perceptible increase in volume; at the same time the temperature is considerably raised. The reaction is finished when the liquor has become red. By cooling, prismatic crystals separate, which are very bulky if the cooling is slow. This compound, which is scarcely soluble in cold sulphide of carbon, contain nearly all the iodine. To extract the chloride of carbon which is found in the liquor, it is stirred with cold water, which decomposes the chloride of sulphur. It is then washed with some potash. The product is finally distilled. It is pure chloride of carbon C^2 Cl^4.

The chlorine which acted on the solution of iodine, produces chloride of iodine, which is decomposed in proportion as it is formed. Iodine is set free and is constantly incline to take fresh quantities of chlorine. A little quantity of iodine suffices then to start the decomposition of a great quantity of sulphide of carbon by chlorine.—(*Bulletin de la Sociéte Chimique).*

ON THE INACTIVE CONDITION OF SOLID MATTER.

M. Gerney has recorded in the *Comptes Rendus* for 19th November, 1866—"It is well-known that when a solid body, such as a glass rod, is introduced into soda-water, seltzer-water, or other supersaturated solutions of a gas, it becomes immediately covered with gas bubbles, and even effervescence may set in." The rod, however, becomes inactive after a short time, or it may be made so by previously immersing it in water or by heating it in a flame of a spirit lamp, or by keeping it out of contact with air. The theory is, that it is not the solid that disengages the gas from its solution, but the air in contact with such solid. The inactive solids become active if exposed to the air for a quarter of an hour, or an hour. Every solid, however smooth, is covered with roughness that form a sort of network of capillary conducts, into which surrounding gases penetrate and condense, and the gas bubbles thus imprisoned act as centres of force in liberating gas from solution. The rougher the body the more brisk the effervescence.

In the August number of the *Philosophical Magazine,* Mr. Tomlinson combats the above theory and denies that air or gas has any action in liberating gases from their solutions.

Experiment 1.—Two ordinarily clean test glasses, A and B were taken. A was first filled with methylated spirits of wine, and then rinsed with abundance of water. A bottle of soda-water was now poured gently into the two glasses. The inner surface of B was profusely covered with gas bubbles, but not a single bubble was seen on the surface of A.

Experiment 3.—A rat's tail file made chemically clean did not liberate any gas, but dried and drawn through the moist hand, it liberated gas abundantly.

Experiment 9.—A glass rod was heated in oil above 3°° Fahr., then wiped with a duster and put into soda-water. It was instantly and completely covered with gas bubbles.

Experiment 11.—A large fragment was broken into two pieces and put into soda water. Gas was abundantly liberated, except from the two new and chemically clean surfaces, and on them not a bubble was seen. Mr. Tomlinson's experiments are more fully described in the *Chemical News* for August 10th.

THE HYBRIDIZATION OF PLANTS.

Mr. J. Anderson Henry, says, that when he had to cross an American with Asiatic species, it took much more kindly than crossing either of these, especially the former, with European species. He here also observes the decided preference of plants of the southern hemisphere to intercross among themselves, however remote their original homes may be—*e.g.*, he found how much easier it was to cross Australian and New Zealand plants with their allies of South America, than with European, or kindred species in the northern hemisphere. He also observed that true American species have greater aversion to cross with European than with Asiatic species, and that Asiatic species have no less aversion to intermix with European kinds.

PRESERVATION OF ANATOMICAL SPECIMENS.

M. Van Vetter, of the Anatomical Museum of the University of Bologne—preserves anatomical preparations in the following manner:—

He takes seven parts of glycerine, one part of brown sugar, and half a part of nitre, and mixes them. The pieces that you wish to preserve (which may be dissected or not), are then plunged into the mixture. Parts that have been in the glycerine for some time are difficult to dissect. The pieces are macerated according to their size—thus a hand ought to remain in eight days. When after a little time the preparation is as hard as wood, he then suspends it in a dry and warm place. The glycerine disappears after a little *(s'évapore),* and perfect suppleness remains.

Anatomical specimens prepared in this manner, not only preserve their softness and their natural colour, but the proper action and mechanism of the muscles may be demonstrated from such specimens.—*Journal de Pharmacie et de Chimie.*

In this month's Journal of the Chemical Society, Mr. Perkin continues his researches upon "Some new Derivations of the Hydride of Salicyl." He describes many new bodies (analysed), which are derivations of the hydride of salicyl (oil of meadow sweet), containing alcohol radicals.

In the Proceedings of the Royal Society, the following are the most important papers:—

"On the Observations made with a Rigid Spectroscope, by Captain Mayne and Mr. Connor," writen by J. P. Gassiot.

"Researches on the Hydro-carbons of the Series, Cn H^{2n} + 2," by Mr. Schorlemmer, are a detail of some experiments with Di-Isopropyl (C_6 H_{14}) and amyl-isopropyl (C_8 H_{18}).

"Researches into the Chemical Constitution of Narcotine and of its Products of Decomposition," (part 2), by A. Matthiessen and G. C. Foster, makes us acquainted with some new compounds, one, which they name methyl nor-

opianic acid (C^9 H^8 O^5), is got by the action of strong hydrochloric acid upon opianic acid. It strikes a blue colour with sesquichlorid of iron, and crystallizes with $2\frac{1}{2}$ molecules of water; meconine yields a similar acid.

"On the Chemical Intensity of Total Daylight at Kews and Para." These are the results of comparative experiments made by Dr. Balfour Stewart at Kew., and by Mr. T. Thorpe in Mexico. It was supposed that there was a peculiar retarding influence at work at the tropics, which the heating and luminous rays were supposed to exert upon the more refrangible portions of the spectrum. The observations detailed by Professor Roscoe proves the fallacy of these statements.

The "Proceedings" contain a most important communication from the pen of Professor Haughton—viz.: "On Some Elementary Principles in Animal Mechanics."

The "Laboratory" of July 6th, contains an article by M. Salets, "On Electrity and Affinity," which is supplemented by one of M. Naquet (see August 10th), "On Chemical Affinity." The last is an attack upon M. Deville, who does not believe in such forces as chemical affinity or cohesion.

THE BRITISH ASSOCIATION.

THE thirty-seventh annual meeting of the British Association for the Advancement of Science was opened last Wednesday at Dundee, under favourable auspices—making the sixth time that the Association has met in Scotland. The Society has been at Edinburgh twice, Glasgow twice, and Aberdeen once.

At the meeting of the General Committee, the following report of the Council for the year was read by Professor HIRST, one of the general secretaries, and unanimously adopted:—

"The general officers of the Association were requested by the Council to inquire into the practicability of having lectures delivered to the operative classes when the Association meets in large towns. The officers having reported in favour of the occasional delivery of such lectures and having likewise ascertained that a lecture of the kind was desired by the local officers at Dundee, the Council have requested Professor Tyndall to deliver one on Thursday evening. At the last meeting of the Association, the Committee of Recommendations referred to the Council certain resolutions which had been adopted by the committees of two sections relative to the teaching of natural science in schools. The Council, fully impressed with the importance of the subject, appointed a special committee for the purpose of inquiring into the question, and of preparing a report thereon. This committee consisted of the general officers of the Association, the trustees, the Rev. F. W. Farrar, M.A., F.R.S.; the Rev. T. N. Hutchinson, M.A.; Professor Huxley, F.R.S.; Mr. Payne, Professor Tyndall, F.R.S.; and Mr. J. M. Wilson, M.A. The Council having considered the report presented by this committee, adopted the recommendations contained therein, and resolved that the report be submitted to the General Committee at Dundee. The Council recommend that Sir Roderick Murchison be elected a vice-president at the present meeting. At their meeting on the 9th of March the Council also decided to recommend for election as a vice-president the late Provost Parker, of Dundee. They afterwards learned with deep regret that death had deprived the Association of the services of so esteemed and zealous an officer. The name of M. Janssen has been added to the list of corresponding members. The Council have been informed that the Association will be invited to hold future meetings at Norwich, Plymouth, Exeter, Edinburgh, Liverpool, and Brighton."

The general treasurer presented the finance report.

The following report of the Parliamentary Committee was adopted:—"Your committee have to express their regret that the Public Schools Bill has again failed to obtain the sanction of the Legislature, but it is a subject for congratulation that the discussions in Parliament and elsewhere, which have followed its introduction, have already borne fruit. The attention of the public appears to have been awakened to the necessity for introducing scientific teaching into our schools, if we are not willing to sink into a condition of inferiority as regards both intellectual culture and skill in art when compared with foreign nations. The voluntary efforts of the masters of two of our great schools to add instruction in natural science to the ordinary classical course are deserving of all praise; and some evidence of their success may be derived from the interesting fact—disclosed in the able report of the committee appointed by the Council of the Association to consider this subject—that some of the boys at Harrow have formed themselves into a voluntary association for the pursuit of science. Your committee have communicated to the Lord Chancellor the reports of the committee on scientific evidence in courts of law, and his lordship has promised to consider the subject during the recess. The chairman of your committee has also lately been in communication with the President of the Board of Trade, with the object of prevailing on the Government to amend the unsatisfactory provisions now in force, under the authority of the Merchant Shipping Act, for securing the proper adjustment of the compasses of the iron-built ships of the mercantile marine. This measure was strongly and ably advocated by the President and Council of the Royal Society, in a correspondence which passed between them and the Board of Trade in 1865, but hitherto without success."

The next report, which was also adopted, was that of the Kew Committee, presented by Mr. Gassiott. It mentioned the steps taken in conjunction with the Royal Society for establishing a system of meteorological observation, and stated that on the 3rd of January the committee of the Royal Society appointed Mr. Balfour Stewart as its secretary, on the understanding that he should, with the concurrence of the Kew Committee of the British Association, retain his present office of superintendent of the Kew Observatory. It also proposed that Kew Observatory should become the central observatory, at which all instruments used by or prepared for the several observatories or stations connected with the Meteorological Department should be verified, the entire expense attendant thereon, or any future expense arising through the connexion of the observatory with the Meteorological Department, being paid from the funds supplied by the latter, and not in any way from money subscribed by the British Association. These proposals having been submitted to the Kew Committee, they approved of the Kew Observatory being regarded as the central observatory of the Meteorological Department, and of Mr. Stewart's holding the office of secretary to the scientific committee superintending that department. When the Meteorological Department was placed under the superintendence of a scientific committee, one of the main objects contemplated was the establishment of a series of meteorological observatories, working in unison with the Kew Observatory, provided with similar self-recording instruments, and distributed throughout the country in such a manner that by their means the progress of meteorological phenomena over the British Isles might be recorded with great exactness. For this purpose it was proposed to have observatories in the following places—Kew (Central Observatory), Falmouth, Stonyhurst, Glasgow, Aberdeen (probably), Armagh, and Valencia. The report then referred at some length to the work done by the Kew Observatory under the direction of the British Association, and also to that done at Kew as the Central Observatory of the Meteorological Committee.

The report of the Committee for considering the best mode of promoting scientific education in schools was next read, and on the proposal of Mr. Grant Duff, M P., seconded by Sir John Lubbock, F.R.S. was adopted *mem. con.*

The report said that already science is recognised as an important part of a liberal education, and recommended that it should be included in the course of all schools, although the difficulties of effecting this were not derived.

Among these difficulties the Committee noticed the increase of expense, which they thought the wealth of the country should be able to meet; the apprehension that the teaching of science would injure the classics, which the Committee held to be exaggerated; and lastly, the strain which it was feared would be put on the minds of boys by the introduction of the proposed subjects, to which they replied that the same objections had been made to the introduction of mathematics and modern languages, and had been found untenable. Distinguishing between scientific information and scientific training, the Committee set forth what in their view the former should embrace, and that in regard to the latter the subjects which had paramount claims were experimental physics, elementary chemistry, and botany. After giving their reasons for the adoption of that programme, the committee made the following general suggestions with regard to the introduction of science into school education:—

"1. That in all schools natural science be one of the subjects to be taught, and that in every public school at least one natural science master be appointed for the purpose.

"2. That at least three hours a week be devoted to such scientific instruction.

"3. That natural science should be placed on an equal footing with mathematics and modern languages in effecting promotions and in winning honours and prizes.

"4 That some knowledge of arithmetic should be required for admission into all public schools.

"5. That the universities and colleges be invited to assist in the introduction of scientific education, by making natural science a subject of examination, either at matriculation, or at an early period of university career.

"6. That the importance of appointing lecturers in science, and offering entrance scholarships, exhibitions, and fellowships for the encouragement of scientific attainments, be represented to the authorities of the colleges."

THE INAUGURAL MEETING.

This was held on Wednesday evening at 8 o'clock, and was attended by upwards of 2000 persons. Before it was formally opened a painful sensation was produced by Sir David Brewster fainting from the heat of the hall. He was at once aided by Professor Balfour of Edinburgh, and other gentlemen. He was carried out of the room, and in a few minutes it was announced that he had quite recovered. He was desirous of returning to the platform, but was very judiciously dissuaded by his medical friends from doing so. Many painful rumours respecting the seizure of the venerable Principal were soon in circulation, and it was some time before they were dissipated. Sir David was not only among the founders of the association, but it was at his suggestion that a few leading scientific men met at York in 1831 and there established the institution which has now attained such proportions.

Like every one present, we cannot but wish the Father of the British Association continued health and strength, and express our sympathy with the weakness which thus displayed itself at the meeting.

In the absence of Mr. Grove, Sir Roderick Murchison in an appropriate speech introduced the President, the Duke of Buccleuch, who was received with loud applause.

THE PRESIDENT'S ADDRESS.

On taking the chair, the Duke of BUCCLEUCH said—Gentlemen of the British Association for the Advancement of Science, and ladies and gentlemen, after what has fallen from Sir Roderick Murchison, I feel that, whatever bold deeds my ancestors may have done or may have attempted to do, perhaps in one sense I have attempted the boldest of them all. If it were only a question of physical endurance or of dashing enterprise I should not have felt abashed, nor shy, nor disinclined for the encounter. I think the old spirit of the Border would have carried me through; but, at the same time, I feel that no man has any right to disparage himself, no man has a title to state that he is unworthy the position he is called upon to fill, whatever may be his private feelings on the subject. To state that he is unworthy to be placed there is not only a disparagement to himself, but it is no great compliment to those who thought him worthy of being so placed. I neither pay myself nor those honourable gentlemen so unworthy a compliment as that. I have been recommended to study, and I have studied with some care, those eloquent addresses that have been made on former occasions by the distinguished and eloquent men who have preceded me in the chair which I have now the honour to occupy. I have been told, and, perhaps, with reason, that it is proper on so great an occasion as this for the president to prepare his address with care beforehand; to commit it to writing, and give an opportunity of putting it in print for the convenience of the members of the Association, and also of those whose peculiar vocation it is to communicate to the public that which passes at public meetings. Unfortunately, perhaps, for myself, and still more unfortunately for you, I have not so done. I never in my life have attempted to pen an address, or to prepare a written speech to be delivered. If I had done so I must have had recourse to the pens and to the heads of others. I might have read an address to you in flowing language, full of science, full of information, but I could not have pretended that it came from myself. I preferred, therefore, rather to fail by speaking what I had to say direct from myself, as it came from my heart and from my head, than to have recourse to the assistance—though most valuable it would have been—of the pens and thoughts of others. Their pens and thoughts have, no doubt, been well employed in anticipation of this meeting. You may read their work in the transactions of this association; you may hear them in the different sections to which ou will be invited to attend. Why, therefore, should I rob them of the fruit of their labours, and of the toil which they had in preparing those necessarily prepared addresses for the different sections? For whatever I may say here, ladies and gentlemen, I alone am responsible. I do not hold that in any degree this Association, or any portion of it, is responsible for what I individually advance; but I trust that nothing I shall advance will be hostile to the feelings and intentions of this Association. When I consider the nature and intention of this great Association, I feel that, if wisely directed, it will be powerful for good; but I also feel that, if ill-directed, it may be powerful for evil. But I trust that will never be the case. I cannot but feel that one of the greatest gifts which Providence has bestowed on man is great intellectual power. It is a talent of the highest price. It is a talent vouchsafed to but few. There may be many who possess it unknowingly, but who, unfortunately, have neither had the opportunity nor the will to avail themselves of it. There are those—and blessed it is for this country and the world—who have this intellectual power, who have also the will and the power to exercise and direct it aright. It varies in different persons. You see it in the great statesman, the great warrior, the mariner, the great discoverer, or the traveller. You see it in all the great branches of science. You will rarely see that any one man possesses the full intellectual power to master the whole. But then we see those great minds seizing on this or that particular branch which is most congenial to their spirits. They will work at it assiduously and continuously, and with a will, not for the purpose solely of aggrandisement or selfish use, but communicating it to the public for the general benefit of the commonwealth. Ladies and gentlemen, this reminds me that since the last meeting of this Association, and within a very short time, one most distinguished member of it has been gathered to his fathers—I mean Professor Farady—one of the most distinguished men in his own branch of science—one who, by great intellectual power and great personal will, was determined to rise above that position in life in which he was born. I believe that in his special line no man was more pre-eminent than Professor Faraday. While we mourn his loss, is his example not an incentive to many others born in the same position as Professor Faraday, as well as to those who may be in a higher position, with better opportunity of cultivating science, and instructing themselves in it? I may be wrong, or I may be right—many may agree with me, and some may disagree with me—but I hold that the study of science ought to be closely connected with true religion. It has struck me that the involuntary admission or confession of the ignorance of a man is nowhere more strongly manifested than in his great desire to acquire knowledge, and that the inquisitiveness of man necessarily indicates previous ignorance of that which he inquires into. For what can men of science do? They search the heavens, and from theories and experiments they deduce certain results; and we are satisfied that they may be right. I am talking of faith, and surely in no instance is faith more tried than when we are called to put our faith in what science teaches us. We have heard to-day at a preliminary meeting a report read on the great importance of having science taught at our public schools, and on the desirability of causing it to form a portion of the curriculum for the study in every school. I quite agree with that, but we must not push the matter too far. In the first instance if you do, you will frighten people, and they will refuse to go along with us. They will say, "Oh! you want to make our boys into a sort of juvenile philosophers!" To say the least of it, I think it would be of great importance to teach the elements of science in our schools, in order to give youth a taste for it, so that when they have acquired this taste, then those who may have an aptitude for some particular department can have an opportunity of discovering that aptitude and following up that science. You can no more drive science down a boy's throat than you can attempt to teach mathematics to a horse. If he is not a dull boy he will take it in, but if he is he won't; but, at the same time, I think the elements of science are of very great importance in our schools. This is an age of progress, we are told, and so it is. In every relation of life science is becoming more and more necessary. For an illustration of this truth, I need not go further than the town in which we are now assembled. Where would it have been but for science? You may, indeed, say, "There's not much science about hemp and flax and jute." But go to the cultivation of these textile fabrics, bring them into this country, manufacture them into useful articles, and then say whether science has not a hand in the matter? Don't we need science to build the ships by which the raw material is conveyed hither from other

lands? Do we not call in the aid of science to navigate these ships, and when they come into port do we not require science to build the docks and harbours in which they are to lie? And then as to the manufactures. Do we not require more science in the departments of chemistry and mechanics to prepare the raw material and even to produce the machinery by which it is to be made into useful articles of commerce? Is there not also good cause to thank science when we come to the department of agriculture? In order to render the soil fruitful, we must put lime here and manure there. You ask why? And the answer is, it stands to reason, because the soil requires these aids to its fertility. And what we want is men of science to tell us why and wherefore we should do this, and point out to us what kinds of soil are better suited for certain operations than others. Take geology now. How many hundreds and thousands of pounds might have been saved in this country if the science of geology had only been better understood? How much has been lost in sinking for coal in places where nobody would have attempted to try such an experiment if they had only asked the advice of an ordinarily well skilled geologist. But while I am speaking on this subject it puts me in mind of another point to which I must advert. I was talking a little while ago of scientific education in schools. We want it in our Universities as well. We want the natural and physical sciences taught as a part of the University curriculum. But there would seem to be great obstacles in the way of such a change. It is not many months since a powerful effort was made to secure the endowment of a geological chair in the University of Edinburgh, which may be said to have been the very cradle of geology, where the science first took its rise, and as Edinburgh is situated on a peculiarly rich geological formation, in which very strange discoveries are frequently made, it was considered that a more suitable place could not have been fixed upon for the establishment of a geological chair. Unfortunately, that attempt was simply snuffed out. We met with a very cold reception, and were told that if we wanted to endow a chair for geology in Edinburgh University, we might endow it ourselves. In vain did we say that great efforts had been made by private benevolence to endow the University, although these had mainly taken the direction of founding scholarships and bursaries to enable the poorer students who thirsted for knowledge to avail themselves of the classes in the University, but we thought the public purse might very well afford to endow a professorship which was really of national importance. I will not pretend to go over the various subjects which are to be taken up in the different sections of the Association. I will only allude to one which I take some interest in,—namely, that of meteorology. Great efforts in this direction have been made, and with signal success, by the British Association, more especially at Kew Observatory. What I have urged—and others with me—upon the Government of the day, is the great importance of having the storm signals renewed at the different ports. I don't mean that we have asked the Meteorological Department of the Board of Trade to turn themselves into weather prophets—to give us forecasts of the weather; but as they have the means to ascertain the strength and prevalence of winds by telegraphic communication over this country, and over Europe and other distant parts, they can inform us whether there are any great disturbances of the elements prevailing. For instance, there may be a tremendous gale of wind or storm on the south coast of Ireland, and at the entrance to the channel. Well, notice of that is telegraphed to Glasgow, Liverpool, and other ports upon the west coast, and commanders of vessels will hesitate to set sail when they hear of such a storm in the seas which they had expected in the course of a few hours to pass through. Such a system of signals as I allude to is of immense value and importance, as many lives may be saved and property secured, by the timely hoisting of the drum. After some further observations on the utility of storm signals and some general remarks on the comprehensive character of the Association, his Grace in conclusion said—Allow me to thank the gentlemen of the British Association for the honour they have done me in placing me in this chair. I know it is no light honour, and I also feel that there is no light responsibility connected with it, and, so far as in me lies, I will endeavour faithfully to perform my duty, so that you may not feel deceived in electing me to this honourable position.

THE ENGLISH VACCINATION ACT.

ABSTRACT.

1. Clause 1 repeals acts and part of acts. Exceptions.

2. Directs Guardians to divide Unions and Parishes into vaccination districts, or to consolidate or alter them, subject to approval of the Poor-law Board.

3. Says that if the Board do not approve, another scheme to be prepared; when approved, Guardians to contract for performance of vaccination.

4. Orders that the qualifications of vaccinators to be prescribed by the Lords of the Privy Council, and other regulations to be prescribed by them.

5. On reports made to the Lords of Her Majesty's Council with regard to the number and quality of the vaccinations performed in the several vaccination districts of England, or any of them, the said lords may from time to time, out of monies provided by Parliament, and under regulations to be approved by the Lords Commissioners of Her Majesty's Treasury, authorize to be paid to any public vaccinators, in addition to the payments received by them from guardians or overseers, further payments not exceeding in any case the rate of one shilling for each child whom the vaccinator has successfully vaccinated during the time to which the award of the said Lords of the Council relates.

6. Every such contract for vaccination shall provide for payment in respect only of the successful vaccination of persons, and so that the rate of payment for primary vaccinations shall be not less than the following, that is to say, for every such vaccination done at an appointed station situated at or within one mile from the residence of the vaccinator, or in the workhouse of the union or parish, not less than one shilling and sixpence; and for every such vaccination done at any station over one mile and under two miles distant from his residence, not less than two shillings; and for every such vaccination done at any station over two miles distant from his residence, not less than three shillings; such distance being measured according to the nearest public carriage road; but in respect of successful vaccinations performed elsewhere than at a station or in the workhouse as aforesaid, the payment shall be according to the terms specified in the contract as approved of by the Poor-law Board.

7. Enacts that conditions may be imposed in the contracts to secure due vaccination of persons.

8. Provides for re-vaccination.

9. Renders a contract not valid unless approved of by the Poor-law Board, who may determine the same at any time.

10. Orders no payment to be made out of the poor-rate or any other public fund, unless the Poor-law Board have approved of the contract.

11. Enacts that no public vaccinator may be paid for vaccination out of his district.

12. Provides for districts in particular places of scanty population.

13. Directs guardians to give notice of alteration in districts.

14. Directs the Registrar-General to provide forms.

15. Directs the registrar of births to deliver notice of vaccination to parent or other person registering birth.

16. Obliges every parent or other person to procure the vaccination of child within three months.

17. Provides for inspection of vaccination.

18. Provides for the unfitness of the child for vaccination.

19. Provides for successive certificates.

20. Enacts that if any such public vaccinator or medical practitioner shall find that a child whom he has three times unsuccessfully vaccinated is insusceptible of successful vaccination, or that a child brought to him for vaccination has already had the smallpox, he shall deliver to the parent or other person a certificate under his hand according to the form in the schedule annexed marked C., and the parent or other person shall thenceforth not be required to cause the child to be vaccinated.

21. Directs a certificate of successful vaccination to be transmitted to the registrar, and a duplicate given to the parent.

22. Orders no fee to be charged for certificate.

23. Requires the parent or other person to transmit certificate of successful vaccination by medical practitioner to registrar of district.

24 and 25 relate to the registrar.

26. Declares that the vaccination, or the surgical or medical assistance incident to the vaccination, of any person in a union or parish, heretofore or hereafter performed or rendered by a public vaccinator, shall not be considered to be parochial relief, alms, or charitable allowance to such person or

his parent, and no such person or his parent shall by reason thereof be deprived of any right or privilege, or be subject to any disability or disqualification.

27. Regulates half-yearly proceedings by registrars and guardians.

28. Gives power to guardians to pay certain expenses out of their funds.

29. Imposes a penalty on parent or other persons neglecting to procure vaccination of the child.

30. Every public vaccinator, parent or person, as the case shall require, who shall neglect to transmit any certificate required of him by the provisions of this act completely filled up and legibly written to the registrar within the time herein specified, and every public vaccinator who shall refuse to deliver the duplicate to the parent or other person, on request, and every medical practitioner who shall refuse to fill up and sign the certificate of successful vaccination when submitted to him as aforesaid, shall be liable to pay upon a summary conviction, a penalty not exceeding twenty shillings; and every person who shall wilfully sign a false certificate or duplicate under this act shall be guilty of a misdemeanour, and punishable accordingly.

31. Permits justices to make an order for the vaccination of any child under 14 years, and imposes a penalty for disobedience, but allows costs to person improperly summoned.

32. Imposes a penalty upon persons inoculating with small-pox.

33 and 34 regulate proceedings.

35. The word "parent" is to include the father and mother of a legitimate child and the mother of an illegitimate child; "medical practitioner" is to mean a registered medical practitioner; and the several words herein contained shall be construed, except where any inconsistency would ensue from such construction, in the same manner as in the several acts for the amendment of the law for the relief of the poor.

36. The seventh section of the Public Health Act, 1858, shall apply to all the proceedings and acts of the Lords of Her Majesty's Council herein authorized.

37. This act shall come into operation on the 1st day of January next, and may be cited as "The Vaccination Act of 1867."

METROPOLITAN POOR-LAW ACT.

ABSTRACT.

Preamble declares this an act for the establishment in the metropolis of asylums for the sick, insane, and other classes of the poor, and of dispensaries, and for the distribution over the metropolis of portions of the charge for Poor relief, and for other purposes relating to poor relief in the metropolis.

The act is limited to the metropolis.

3. This Act extends only to unions and parishes not in union which are wholly or for the greater part thereof respectively included in the metropolis as defined by the metropolis management act, 1855, and in this act, the term "The Metropolis" means the metropolis as so defined.

District Asylums.

5. It provides asylums to be supported and managed for reception and relief of the sick insane, or infirm, or other class or classes of the poor chargeable in unions and parishes in the metropolis.

6. For this purpose, the Poor-law Board may from time to time by order combine into districts, unions, or parishes, or unions and parishes, in the metropolis, as they think fit, and may from time time alter any such district by addition, subdivision, separation of part or otherwise.

7. For each district there is to be an asylum or asylums, as the Poor-law board from time to time by order direct.

Separate clauses provided for the election and nomination of managers, building asylums, hiring lands, adapting existing workhouses, &c.

Medical Out-door Relief is provided for in the following clauses:

38. The Poor-law Board may from time to time, by order, direct the guardians of a union or parish in the metropolis to provide a dispensary or dispensaries for such union or parish, and to purchase or hire, or to build (and in either case) to fit up and furnish a building or buildings for that purpose, of such nature and size, and according to such plan, and in such manner as the Poor-law Board think fit, or to set apart, adapt, fit up and furnish for that purpose such part of the workhouse of the union or parish, according to such plans, and in such manner, as the Poor-law Board think fit, and the guardians shall act accordingly, and where the Poor-law Board by order so direct, the guardians may borrow the amount requisite in that behalf, in like manner and subject to the like conditions as in the case of the building of a workhouse.

39. There shall be a committee of management for the dispensary or dispensaries in each union or parish, to be called the dispensary committee for the union or parish (and in this act the term "the dispensary committee" means, in relation to each union parish, the dispensary committee for the same for the time being).

40. The dispensary committee shall be elected by the guardians of the union or parish from among themselves, or from among Ratepayers of the union or parish assessed to the poor-rate on an annual rateable value of not less than forty pounds, or partly from one and partly from the other.

41. The Poor-law Board shall from time to time prescribe with respect to each committee the number and tenure of office of the members, the mode and times of election, and the quorum for their meetings.

42. The guardians of each union or parish providing a dispensary shall also provide, according to the directions of the Poor-law Board, proper places where the medical officers of the union or parish may see such of the sick poor as attend there for advice, and where meetings of the dispensary committee may be held.

43. The dispensary committee shall from time to time appoint and shall at all times keep appointed proper persons to be dispensers of medicine at the dispensaries for the union or parish, and may from time to time appoint such other officers and such servants for the purposes of those dispensaries as they think fit.

The duties, qualifications, number, and salaries of the dispensaries, officers, and servants shall be such as the Poor-law board may from time to time approve or by order direct.

44. The guardians of each union or parish providing a dispensary shall from time time, on the requisition of the dispensary committee, provide proper medicines and appliances and requisites for the care and surgical treatment of the sick poor of the union or parish relieved out of the workhouse, and the same shall be dispensed and furnished to such of the poor entitled to relief as require the same, on the prescription or written direction of the district medical officer, subject to such regulations as the Poor-law board from time to time by order direct.

45. The district medical officers for a union or parish shall be from time to time appointed by the dispensary committee, subject to the rules and orders of the Poor-law Board respecting appointment and removal of officers under the Poor-law Acts; but the district medical officers in office at the time of the dispensary committee entering on their duties shall continue in office as if this act had not been passed, subject, nevertheless to such modifications of arrangements respecting their duties and remuneration, made with them before the passing of this act, as the Poor-law Board think fit.

46. For giving effect to the provisions of this act relating to medical relief out of the workhouse, the Poor-law Board may from time to time vary as they think fit medical districts, salaries, and contracts with district medical officers, existing at the passing of this act or at any time thereafter.

The next three clauses provide for a few district and separate schools.

50. Provides for the reception in workhouses of poor of certain classes belonging to other unions or parishes.

The next clause relates to lands and the contributions of unions and parishes.

59. Relates to medical in-door relief, and is as follows:—

In order to facilitate provision for the appointment, where requisite, of resident workhouse medical officers, and for better classification and management of the sick poor in a separate hospital or building, or in an infirmary kept distinct from the rest of the workhouse, the Poor-law Board may, by order, determine, or from time to time vary as they think fit, any contract with any medical or other workhouse officer existing at the passing of this act, and direct the guardians to pay to a medical or other officer affected thereby such compensation by way of increased salary, or of an annuity, or of a gross sum, or otherwise, as the Poor-law Board think fit.

The houseless poor and the metropolitan common poor fund, occupy the next few clauses.

69. Expenses incurred for the following purposes after the twenty-ninth day of *September* one thousand eight hundred and sixty-seven shall be repaid out of the common poor fund, that is to say:—

(1.) For the maintenance of lunatics in asylums, registered Hospitals, and licensed houses, and of insane poor in asylums under this act, except such expenses as are chargeable on the county rate :
(2.) For the maintenance of patients in any asylum specially provided under this act for patients snffering from fever or small pox :
(3.) For all medicine and medical and surgical appliances supplied to the poor in receipt of relief by guardians under this act or any of the Poor-law acts :
(4.) For the salaries of all officers employed by the guardians in and about the relief of the poor by the managers of district schools under "The Poor-law amendment act, 1844," and by the managers of asylums under this act, and also the salaries of the dispensers and other persons employed in dispensaries under this act, provided the appointments of the officers have been sanctioned by the Poor-law Board.
(5.) For compensation to any medical officer of a workhouse affected by the determination or variation by the Poor-law Board of a contract respecting medical relief in the workhouse, or for compensation to any officer of a union or parish who may be deprived of his office by reason of the operation of this act.
(6.) For fees for registration of births and deaths.
(7.) For fees for and other expenses of vaccination.
(8.) For maintenance of pauper children in district, separate, certificated, and licensed schools.
(9.) For relief of destitute persons certified by the auditor, and provision of temporary wards or other places of reception approved by the Poor-law Board, under the metropolitan houseless poor acts of 1864 and 1865.

The remaining clauses relate to guardians and property.

POOR-LAW AMENDMENT ACT, 1867.

ABSTRACT.

This is an Act to make the Poor-law Board permanent, and to provide sundry Amendments in the Laws for the relief of the Poor.

1. Repeals Sect. 28 of 10 and 11 Vict. c. 109.

2. Provides that Local Acts relating to the poor in places out of the metropolis may be altered by a Provisional Order of the Poor-law Board, to be confirmed by Parliament.

3. That the Poor-law board may adjust intermingled parishes or divide extensive parishes by a Provisional Order to be confirmed by Parliament.

4. Defines the qualification of guardians.

5. Says—owners residing in parishes are not to vote by Proxy.

6. Repeals Sect. 21 of 7 and 8 Vict. c. 101, and other Provisions made as to voting in wards.

7. and 8. Enacts that Overseers may object to names of owners on the registrar, and make fresh registers.

9. to 20. Regulate election of guardians raising money to erect workhouses, contributions of parishes, &c.

21. Enacts that guardians may provide for adult paupers, blind, or deaf and dumb.

22. Empowers guardians to detain indoor paupers.

23. Provides for Pauper Lunatics sent from boroughs.

24. to 28. Relate to removals, expenses, jurisdiction of justices.

27. Provides that a fire engine may be purchased for the use of the parish.

Correspondence.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY ROAD.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—On receipt of the circular letter issued by Dr. Richardson, Dr Leared, and Dr. Powell under date of the 22nd ultimo, which was received by the council and governors on the 28th ultimo, and appeared in two of the medical papers of the 31st ultimo, the Council of the Hospital was immediately summoned, and after a lengthened discussion, the following resolutions were unanimously passed, viz:—

1. "That the resignations of Dr. Richardson, Dr. Leared, and Dr. Powell be accepted, and whilst fully appreciating their past services to the Hospital; the Council consider it expedient to intimate to them that their further attendance will not be required."

2. "That the Secretary be authorized to communicate with Dr. Richardson, Dr. Leared, and Dr. Powell, and intimate to them that they are at liberty to attend any patients at present in the Hospital who have up to this time been under their charge, and that they be requested to inform the Secretary whether they desire to do so or not."

And I am instructed to enclose you a copy of the reply of the Council, issued to the governors in answer to the 22nd of August.—I remain, Sir, your obedient servant,

CHARLES T. KEMP, *Secretary.*

City Road, September 4, 1867.

"TO THE GOVERNORS OF THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

"City Road, September 3, 1867.

"GENTLEMEN,—The circular letter issued by Dr. Richardson, Dr. Leared, and Dr. Powell, dated 22d August last, casting certain imputations on Dr. Dobell, and tendering their resignations, was received by the council on the same day it was circulated among the governors. Until the receipt of that circular the general body of the council were kept in ignorance of any serious dissensions existing among the Medical Officers of the Hospital. But at a council meeting held on the 13th August last, nine days earlier, when only four unofficial members were present (two of whom attended for the first time), a letter from these three gentlemen was read, expressing objection to Dr. Dobel as honorary secretary, but as Dr. Richardson—who has *ex-officio* a seat at the Council—withdrew the letter, the council generally were still uninformed of the existing differences.

"The council beg to assure the governors that they have always been ready and willing to give immediate attention to any complaints, and had an opportunity been afforded of investigating the charges recited in this circular, the council would have carefully examined the matters complained of, and endeavoured to reconcile conflicting opinions, as their rule of action has always been that individual interest shall succum to the general welfare of the hospital.

"The course adopted by Dr. Richardson, Dr. Leared, and Dr. Powell, in publishing their complaints and resignations, simultaneously to the governors and to the Council, is deeply to be regretted, as it has prevented the good offices of the council being usefully exercised, and can have no other effect than to prejudice the hospital in the minds of the governors and the general public.

"The council have always fully appreciated the value of Dr. Richardson's and Dr. Leared's gratuitous services to the patients at the hospital, and have even at times sought to obtain a more regular and continuous supply of these valuable services; for though Dr. Powell always attended in their absence, yet the patients have often complained that instead of seeing a physician they were handed over to one in whose opinion they did not place so much confidence. On reference to the minutes of the council it is found that during the last three years this want of regularity in the medical service has been on eight several occasions under consideration; and on the 23d day of October, 1866, the following entry appears on the minutes, viz.:—

"Complaints having reached the committee of the frequent absence of Drs. Richardson and Leared from the duties of the Infirmary, during the present year, and the committee having ascertained, by reference to the attendance book, that such complaints were well founded, it was

"RESOLVED UNANIMOUSLY,

'That the Secretary be instructed to wait upon Dr. Richardson and Dr. Leared, and request them to favour the committee with an explanation; and also to send each of them a copy of this resolution.'

"This was the only real difficulty in the medical service with which the council was acquainted.

"With regard to the statements in the letter of August 22, the council desire to give the governors the fullest information in their power.

"*As to the Honorary Secretaryship.* The necessity for this office arose from the age and increasing infirmities of the late Secretary, Mr. Smart, which prevented him from giving that attention to the affairs of the hospital which they required. Mr. Smart's long and valued service prevented, until his death or resignation, the selection of another Secretary; hence, the council sought to aid Mr. Smart by appointing an honorary secretary. The most active and earnest endeavours were made by Dr. Dobell to induce certain of the council to take this office; and when it was fully shown that this object could not be attained, the council, in the last resort, urged Dr. Dobell's acceptance of the office, to prevent confusion arising by the accumulation of arrears in the general business. It was with extreme reluctance that Dr. Dobell assented to this proposition; and when he at last accepted the office, he distinctly stated that he could only do so *temporarily*, to meet the existing emergencies of the hospital, and that he must resign the office as soon as a permanent and efficient secretary could be appointed. *These intentions appear in the minutes of the council*, where it is recorded (under date 31st September, 1866), "that Dr. Dobell stated—'that he had no leisure time at his disposal, but would do his best to assist in conducting the business of the Infirmary in the capacity of Honorary Secretary, until some more efficient person, with more time at his command, should be willing to undertake the post.'"

"It is, therefore, clear that Dr. Dobell has only tried to help the hospital when in difficulty, and has not sought any individual elevation by acting as Honorary Secretary; and the council think that he deserves the best thanks of the governors, rather than the condemnation which is sought to be passed on him.

"As to *The issue of Diet Tables bearing Dr. Dobell's name, and that of the Hospital.* It is most true, they have been issued to such of Dr. Dobell's patients, as he thought required a peculiar diet. The council find that at St. Bartholomew's they keep printed general instructions for each medical officer—headed with the name of the hospital, and printed in large letters '*Directions for Dr. ——'s patients*' (being the exact form of words used on the diet-tables complained of). These printed instructions are given to the

patients. At St. Thomas's, Guy's, King's College, and Brompton, they issue papers bearing the name, and at one of these hospitals the private address of the Medical Officer under whose particular charge the patient is placed, as well as the name of the hospital. It therefore seems to the Council (as non-professional men) that what is found desirable and useful in such great charities, cannot be wrong in an institution of more limited action.

"The *assumption of authority and spirit of interference* complained of, the council have never witnessed, but in the frequent intercourse which they have had individually and collectively, with Dr. Dobell, they have always found him peculiarly conciliatory and ever willing to consider any suggestions which could tend to advance the interests of the hospital; and the Council are unanimous in their belief that if Dr. Richardson, Dr. Leared, and Dr. Powell had expressed to him their dislike to his holding office as Honorary Secretary, or to the issue of diet tables bearing his name—he would willingly have adapted himself to their views if they had been courteously conveyed; but these gentlemen have studiously avoided uttering a word of complaint to the Council, and it probably may seem as strange to the Governors as it is to the Council, that at the last annual General Court of the Governors, held on the 2nd July last, one of these gentlemen attended and assented to the confirmation of Dr. Dobell's appointment as Honorary Secretary.

"It is essential to a correct judgment that the governors should be informed that the council and Dr. Dobell have always been opposed to lowering the qualifications of the Medical Officers. Dr. Richardson and Dr. Leared have frequently endeavoured to obtain an alteration of the laws which require that each Physician or Assistant-Physician must be a Fellow or Member of the Royal College of Physicians of England; they have also urged Dr. Powell's claims to one of these appointments. Dr. Powell does not possess the necessary qualification, though during the absence of Dr. Richardson and Dr. Leared, he has times without number performed the Physicians' duties pertaining to those gentlemen. The council, however, have felt that it would be impolitic to lower the standard of the medical staff, as that would tend to impair the value and usefulness of the charity.

"For many years past Dr. Dobell has exerted himself constantly and effectively to advance the interests of the hospital; and it is but fair to him to state that its present position is mainly due to his continued exertions in its behalf. While, on the other hand, Dr. Richardson and Dr. Leared have always contented themselves with a simple performance of their duties, partly by deputy, and rarely by exerting any influence, or giving any special assistance to advance the charity.

"The council, therefore, having been deprived of all power to conciliate differences by the method taken of communicating them, and it being without doubt that the Medical service could not be either efficiently or harmoniously conducted, in its recent condition, they have, after deliberate consideration, thought it most consonant with the future progress of the hospital to accept the resignations tendered, and will seek elsewhere for that further Medical assistance which these vacancies render necessary. The governors, however, may rest assured that the great benefits which the charity has hitherto been instrumental in bestowing for so many years, will be still continued, as arrangements have already been made for providing efficient Medical attendance to all the present and future patients.

"It is impossible for the Council to conclude this letter without expressing the strongest condemnation of the course adopted by Dr. Richardson, Dr. Leared, and Dr. Powell, who must have been aware that in exaggerating the importance of their complaints by circulating them among the governors and the Medical journals, instead of seeking redress at the hands of the council, they were exposing a valuable charity to the risk of losing its professional reputation and public support.—By order,

CHARLES L. KEMP, Secretary.

"P.S.—A copy of Dr. Dobell's reply to the circular letter, and addressed to the Council, is sent herewith, and I am instructed to state that any of the documents referred to in this letter may be seen at the hospital."

"TO THE COUNCIL OF MANAGEMENT OF THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

"84, Harley-street, August 30th, 1867.

"GENTLEMEN,—The circular of Dr. Richardson, Dr. Leared, and Dr. Powell, which you have met to-day to consider, while it is damaging to the reputation of your hospital, attempts to cast a slur upon me, which it is in your power to remove if you decide that it is not deserved.

"This circular has been circulated amongst the general public, and published in the leading medical journals of to-day; and the damage which it is intended to do to your hospital, and to myself, will be multiplied a hundred-fold if a satisfactory answer to the circular does not appear in the medical journals of next week.

"I respectfully and earnestly request, therefore, that you will not part to-day until you have completely satisfied yourselves on all the points contained in the Circular, and drawn up such an answer as your deliberations shall lead you to consider necessary.

"I believe it is well-known to you that I have been for a long time past (See the Minutes of Medical Council, July 3, 1866), in collision with my colleagues, Dr. Richardson and Dr. Leared, on the subject of their wish that your Surgeon, Dr. Powell, should be admitted as a Candidate for the office of Physician or Assistant-Physician to your hospital, without being required to submit to the laws of the institution, by relinquishing the practice of pharmacy, and becoming a Member of the Royal College of Physicians.

"I have maintained (and in so doing have come into direct collision with three of my colleagues) that the law of the hospital should be strictly enforced; and that by waiving it or altering it in such a manner as to lower the qualifications required by your Physicians, the professional status and public reputation of your hospital would become degraded.

"I still hold this opinion; and, on a recent occasion, when the laws of the hospital were revised, I was obliged to repeat my opposition to my colleagues, Dr. Richardson, Dr. Leared, and Dr. Powell, in their wishes that the laws of the hospital should be modified to meet their views.

"This, gentlemen, is the only ground that I am aware of for the charge of 'assumption of authority and spirit of interference,' &c., brought against me in the circular. And I must be allowed to point out that these terms are quite inappropriate, for I have only maintained my position by argument in the open field of your meetings, and those of the 'Medical Council,' in which my colleagues have as much to say as myself.

"It will be for you to form your own opinions as to how far this matter has influenced the feelings of the writers of the circular.

"I regret to be obliged to state that after the extraordinary course pursued by my three colleagues, in thus addressing the public and the profession in a printed circular, of which they did not even send me a copy, instead of bringing their complaints before me privately, and, if necessary, urging them before you, the governing body of the hospital, it would be utterly impossible for me again to work in concert with Dr. Richardson, Dr. Leared, and Dr. Powell, as colleagues.

"With regard to my occupation of the post of honorary secretary, to which you did me the honour to appoint me in September, 1866, and again at the annual general court of governors, on July 2nd, 1867, your minutes of the day will show you that I reluctantly accepted the office to serve you in a temporary difficulty, viz., the illness and decease of your secretary; the opening of the emergency wards, and the induction of your new secretary into his duties, and that I stated at the time that I should only hold it till you 'could find some more efficient person with more time at his command willing to undertake the post.' Having had the satisfaction of seeing that temporary difficulty safely and successfully overcome, I placed a letter in the hands of your secretary, August 14th, requesting that you will release me from my duties as soon as you conveniently can.

"With regard to the other charges in the circular which relates to me: the one concerning diet tables is answered by a letter of mine in the *Medical Times and Gazette* of August 24th inst. I wish, however, to add, that although it may appear to you that as the headings of these tables were copied exactly from the form used at St. Bartholomew's Hospital, as the heading of its out-patient letters, viz., '*Directions for Dr.——'s Patients*,' they ought not to be subject to any objection; yet, as these headings are in no way essential to the object with which I use the diet Tables, and as they appear to have given offence to the feelings of some members of my profession, which I sincerely regret, I beg to ask that you will direct fresh Diet Tables to be printed, in which both my name and that of the hospital are omitted.

"The charge concerning Pancreatic Emulsion, viz., that the bottles in which it is served have my name on the label, is as easily answered. If you will enquire in the Dispensing department, you will learn that this remedy which I had the honour to originate in your hospital, and which is in considerable repute—(see a report on 'The experience of medical men who have used Pancreatic Emulsion,' just published by Churchill)—is very easily spoiled if removed from one bottle to another after it is made. It appears that to avoid this difficulty, your Dispenser has been accustomed to order the Emulsion direct from the manufacturer in bottles of the size he requires for the patients, and to dispense it to them in the same bottles in which it arrives. These bottles have borne the usual label of the manufacturer, giving his name, directions for the dose and mode in which the medicine is to be taken, and the words 'Pancreatic Emulsion, originated by Dr. Dobell, Physician to the Royal Infirmary, for Diseases of the Chest.'

"Your Dispenser will be able to tell you that on my ascertaining, sometime back, that these bottles were dispensed to the patients without changing this label of the manufacturer for the usual plain label of the hospital, I directed him in future to order the bottles to be sent in without this label, and if he attended to my orders, my name has not appeared on the bottles for some time past.

"With regard to my recommending pancreatic emulsion to my patients, I need hardly say that I am bound to recommend to them whatever I consider will do them the most good; and that having spent a large portion of my time during the last few years in attempting to prove to the Medical Profession the value of this remedy, having to a large extent succeeded in doing so (as shown by the report already referred to), and finally, having given the remedy to the profession and the public without reserving to myself the smallest pecuniary advantage, for the very purpose that I might recommend it without the possibility of incurring a charge of self-interest; after this, I say, it would be strange indeed if I hesitated to prescribe it for my own patients.

"With these explanations, gentlemen, of some points which I thought you might not fully understand, I commend all my acts, which have been so publicly assailed by three of my colleagues, to your full, open, and impartial investigation, and I rely upon your justice and honour to condemn me if I am wrong, to defend me if I am right.—I am, gentlemen, yours, very faithfully, HORACE DOBELL, M.D."

THE COLLEGE OF PHYSICIANS OF LONDON.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Whether the licence of a College of Physicians of London does or does not in law entitle the holder as a doctor, is not as yet so near settled a point as your correspondent, "A Fellow," seems to imagine. He tells us "the College makes its Licentiates promise not to use the title." Why? Because the Fellows who make the bye-laws would be considered as superior to men equally qualified with themselves, but who lack those better recommendations—money and interest. The very fact that the College extorts the promise is proof enough that they are at least doubtful about the right.

As to the assertion that "the degree of doctor can only be conferred by universities"—it is simply absurd, whilst the Archbishop of Canterbury's graduates are on the register by Act of Parliament.

In conclusion, I am not a Licentiate of the London College of Physicians, and therefore never likely to fall under the blackballing threatened by "A Fellow."—I am, sir, yours respectfully.

ANTI-HUMBUG.

THE USE OF THE CITRATES OF LITHIA AND QUININE IN ATONIC GOUT AND CHRONIC RHEUMATISM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—Having for some time past prescribed with advantage, both in hospital and private practice, a combination of the citrates of lithia and quinine in atonic gout and chronic rheumatism, it may not be out of place to direct, through the medium of your Journal, the attention of those members of the profession, who may not have used the combined medicines in question, to their value in the cases referred to.

The following is the usual manner in which I order the above combination, viz :—

℞ Citratis Lithiæ, gr. v.
Citratis Quininæ, gr. ii.
Aq. destillatæ, ʒvii.
Syrupi Limonum, ʒi. M.

Fiat haustus, ante gentaculum, and prandium in dies sumend.

The lithia and quinine may be considerably increased in their quantities after a time, according to the discretion of the prescriber.

Messrs. Oldham and Co. have lately prepared some of the above draughts for me in an ærated state, a form I can recommend to the Profession.—Yours, very truly

J. STANNUS HUGHES.

PATHOLOGY OF "BLACK DEATH."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Unfortunately I was unable to attend the medical section of the late meeting of the British Medical Association during the reading of Dr. Gordon's interesting and valuable paper on Cerebro-spinal Fever. In the discussion which followed, several members, as I am informed, expressed themselves as being still under the conviction that the so-called "Black Death," if not identical with cerebro-spinal meningitis, is, at least, intimately connected with it. Others were decidely opposed to this view. At the discussion which took place at the meeting of the Medical Association, held at the College of Physicians last May, for "The Consideration of a Recent Epidemic," many of the members expressed opposite views on that question. Notwithstanding all this difference of opinion, however, it will be found unhesitatingly assumed, as if it were an established *fact*, that the two diseases are the same, in a most suggestive and valuable paper by Dr. Purefoy, on Purpuric Fever, which appeared in your number for the 21st of last month.

The words I refer to are as follows :—"The purpuric fever, or, as it is pathologically designated, cerebro-spinal arachnitis," &c.

This is undoubtedly assuming the question prematurely, and with a view to eliciting further remarks, which may enable us eventually to arrive at the truth, I address these few lines to you.

Every practitioner knows as well as I do, that two diseases may have many pathological conditions in common, and yet be totally different diseases. But if the essential pathological condition, as I may call it, if there be such, of A be always present in B, A is either a part of B, or else it is the same disease, though A and B may present different forms of that disease.

Again, if in B the essential pathological condition of A be absent, I take it that they are two different diseases. And, further, as it will be allowed by all that if a theory be found in any one case not to hold good, the theory must be a false one, so it must be allowed that if it even once happen, that the essential pathological condition of A be absent in B, this solitary fact would be enough to prove that, though the two diseases, A and B, might frequently occur together, and the essential pathological condition of each occur in each, still that they would be two different diseases, and that the theory which supposes them to be otherwise, must be a false one.

If these positions be granted, let us apply them to the diseases under consideration, "black death" and cerebro-spinal meningitis. I maintain that if the essential pathological condition of the latter can be shown to have been totally absent in any one undoubted case of the former, that is quite sufficient to prove the two diseases different.

In a case of "black death" which I published in your issue of April 24 of this year, it will be seen that the essential pathological condition of cerebro-spinal meningitis—viz., inflammation of the meninges of the brain and spinal cord, was totally absent.

This case alone (and it is by no means a unique one) seems quite sufficient to prove, as far as anything can be proved in medical science, that, though the two diseases in question may often be coincident, they are not merely different forms of the same disease, and, *a fortiori*, that they are not actually the same disease, and ought not to be confounded together, either in name or treatment.—I am, dear Sir, yours truly,

JOHN HAWTREY BENSON, M.B.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

SINCE the observations which appear in another part of our issue were printed, we have received a communication from Dr. Horace Dobell, which we regret it is not in our power to publish *in extenso*. The following extract, however, appears to us to corroborate the view to which we have given expression, as to the indiscretion of the course adopted by Drs. Richardson, Leared, and Powell. We venture to remark that the precipitate and ill-considered step taken by these gentlemen, whatever may have been the causes which led to it, cannot command the sympathy of the Profession. Dr. Dobell's letter to us says :—

"At our Hospital, the House Committee sits every week, the Council of Management every month, and oftener if required. The Annual General Court of Governors was held on the 2nd of July last, followed by a *dejeuner*, at which all the Physicians were present. At this annual court all officers are elected for the year, and all the affairs of the Hospital are open for investigation. Yet neither to me privately, nor at any of these meetings, did my three colleagues utter their complaints, or suggest, even by a word, that my election to the post of hon. secretary was otherwise than agreeable to them; and they so carefully concealed their plans from the Council and from me, that the Council did not hear of them till they received, individually, by post, in common with the whole body of governors, the printed circular; and I myself knew nothing of it till a governor showed me a copy which he had received, the authors not having thought proper to send one to me. It is not necessary for me to make any comments upon a proceeding which speaks so plainly for itself."

Gleanings.

HISTORIOGRAPHER FOR SCOTLAND.—Mr. John Hill Burton, advocate and LL.D., has received the appointment of Historiographer to the Queen for Scotland. Mr. Burton has devoted so much of his time to the elucidation of Scottish history, and his historical works, especially the volumes of his history of Scotland recently published, have been regarded with such marked favour, that although he is not a supporter of the Government, his claims to be selected for this honourable distinction must have been considered very strong; and we do not doubt that the friends of literature will consider that the appointment has been appropriately bestowed on so distinguished a writer of Scottish history.—*Edin. Courant.*

THE MERCHANT SERVICE.—Between twelve and one o'clock on Sunday morning a man was hoisted on to the surgical deck of the Dreadnought hospital ship, exhausted and bloodless, suffering from a large ulcer of the leg, of five months' standing. This man states that the vessel from which he came arrived in the river, and actually hauled into the West India Docks, at noon on Friday last. He requested, naturally enough, to be sent to hospital as soon as possible, but was told by the captain that he "would see to it;" was fed on tea, bread, and water during the interval, and although the Dreadnought is moored not more than half a mile from the docks in which this vessel lay, no less than forty-eight hours elapsed before the master could find time to remove this wretched man, the removal being, after all, effected by carrying him down to the river, calling a waterman's boat, and studing him up to the Dreadnought alone and unassisted. This is by no means, we are told, a solitary instance of practical barbarity afloat, and the scurvy statistics compiled by Mr. Harry Leech might be readily and perhaps usefully supplemented by records of these cases, which are far more common than is generally supposed or suspected.—*Pall Mall Gazette.*

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 18, 1867.

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In this, our "Students' Number," we have endeavoured to sustain our position as a British Journal, by producing with equal exactness the Educational Regulations of England, Ireland, and Scotland. To effect this object, and reduce the very voluminous Rules and Bye-Laws to a shape comprehensible to Non-Professional readers, we have been obliged to curtail them as far as is consistent with its completeness. In doing so we have been careful to confine ourselves to the erasure only of legal technicalities and roundabout phrases, retaining the gist of all the Regulations, educational and otherwise. We believe that no point of interest or importance to the Student will be found wanting.

We have endeavoured, in our Editorial Observations, to supplement the Official Regulation of Universities, Colleges, and Schools, by information respecting the means usually employed for obtaining Professional Qualifications and Admission to the Medical Departments of the Public Services, which can only be obtained through private sources, and is of quite as much importance as the Official Regulations.

The Public Services.

ARMY MEDICAL SERVICE.

The appointment of Assistant-Surgeon in the Army is open to all who can prove their claim to it by superior answering. The Competitive Examinations are held at Chelsea, usually in the first week of February and August. The candidate is not required to produce any other qualification before presenting himself for examination, than his Licences to practise and Certificate of Registration, and in this respect the Army service differs from the Naval, in which the very senseless practice of compelling a candidate to produce all his certificates is enforced. The candidate having sent in his papers and followed them to London, meets his competitors at Chelsea. He is examined by Dr. Hooker on Natural History, Botany, Chemistry, and Materia Medica; by Dr. Parkes on Medicine, Midwifery, Therapeutics, Pathology, Pharmacy, and the writing of Prescriptions; by Dr. Pollock on Surgery and Surgical Appliances; and by Dr. Busk on Anatomy, Physiology, and Comparative Anatomy. Natural History and Botany are voluntary subjects. For the first two days of his examination he is employed on penning answers to printed questions; for the third and fourth days he is examined *viva voce* on all subjects; and on the fifth and sixth days he is tested by the diagnosis of disease at the bedside in the hospital, by the application of surgical apparatus, and by operations on the dead subject. This trial finished, the successful candidates (varying in number from fifteen to thirty) are selected; but the successful competitors are *not* arranged in order of merit, nor are their marks made known.

NETLEY HOSPITAL.

A certain number of candidates, whose answering has been satisfactory, but not sufficiently so to entitle them to a place, are offered appointments on the Gold Coast of Africa. These situations, while they are subject to strong objection on the score of the deleterious nature of the climate possess great advantages for those whose health can resist its influence. The districts comprised under the Gold Coast districts are Sierre Leone, Gambia, and Cape Coast Castle. If the candidate accepts the appointment he is sent out at once, without the period of probation to which others are subjected at Netley Hospital. He is allowed to spend a year at home, on full pay, for every year spent in Africa, and the entire period at home and abroad counts as service for pension. The promotion is only too rapid, owing to the dangerous nature of the climate; and we have known the rank of full Surgeon reached in five years from the date of appointment as Assistant-Surgeon.

The competitor who has been so fortunate as to obtain a place in the ordinary service, is not allowed to join his regiment at once. He is obliged to undergo a probation of four months at Netley Hospital, near Southampton, where he is compelled to attend the following lectures, viz.—

Hygiene, by Dr. Parkes; Pathology, by Dr. Aitken; Military Surgery, by Dr. Longmore; and Tropical Diseases, by Dr. Maclean. The lectures on Military Surgery include gunshot and other wounds; arrangements for the transport of wounded; duties of Army Surgeons in the field, during sieges, on transport, &c.; and other special subjects. Those on Military Medicine refer to the tropical and other diseases of the British possessions and colonies, and to the losses by disease. The lectures on Hygiene relate to the examination of water, air, food, clothing, &c., of the soldier; his duties and exercise, and the circumstances affecting his health, meteorology, statistics, and prevention of disease. The lectures on Pathology have reference chiefly to the scientific examination of tropical diseases, and of the other complaints which the Army Surgeon is especially called on to investigate. The candidates also attend the wards of the Hospital under the Professors of Medicine and Surgery, to make themselves acquainted with the system of recruiting, and the modes of keeping the Army Medical Returns. They are also called on to make post-mortem examinations, to operate on the dead body, and pass through laboratory practice on the modes of recognising the qualities and adulterations of food, and on microscopic examination of morbid tissues and adulterations of food, &c. During his preliminary training here the student is understood to be in Her Majesty's service; he wears uniform, is under military discipline, and receives pay at the rate of five shillings per day, and two shillings per day for lodging money, if he be not provided with lodgings in the hospital. At the termination of the four months he is again examined in the subjects in which he has been instructed during that period, his marks are added to those obtained by him at the Competitive Examination, and his position on the list of merit determined by the total. He is then gazetted to his regiment, or employed on the staff, and enjoys all the rank and honour, pay and privileges, of an Assistant-Surgeon, as provided by the regulations. The official regulations will be found in another part of our issue.

NAVAL MEDICAL SERVICE.

The following information is extracted from a valuable *brochure*—"Everything About Them," recently issued by Messrs. Edmonston and Douglas.

In applying to be admitted as an Assistant-Surgeon in the Royal Navy, it is merely required to address a letter to the Secretary of the Admiralty, stating that you are in possession of a diploma from such a college—naming it; that you are of the required age, stating the same; and that you are desirous of being admitted as a candidate, when, if there are any vacancies, you will be informed when you will be required to present yourself at Somerset House, London, for examination. If there should be no vacancies you will be informed accordingly.

It is not unusual for gentlemen, when applying for admission to solicit their appointments through a Member of Parliament or other influential party. But this sort of influence is by no means essential to success under ordinary circumstances.

Having passed your examination, you will, in the course of the following day, receive your appointment as Acting Assistant-Surgeon to one of Her Majesty's ships, either for service on board that ship, or for service on shore, at one of the naval hospitals—Haslar or Plymouth. You will at the same time be informed that you are granted two or three weeks, as you may require, leave of absence, to enable you to provide your uniform and appointments. These you can get at Gilliott's in the Strand, or at any of the naval outfitters in Portsmouth or Plymouth.

The expense of an Assistant-Surgeon's Uniform is about £47 5s.

These are *credit* prices, but would, I presume, be considerably less for *ready money*, a thing by the by, to which naval tailors are not much accustomed.

You must also provide yourself with a set of Surgical Instruments, which will cost you from ten to fifteen guineas.

All kinds of underclothing, towels, handkerchiefs, etc., may be purchased much more advantageously from a regular dealer in those things, than from any naval outfitter.

ADVANCE OF PAY ON JOINING.

On joining your ship you will, if you wish it, be paid what is termed three months' in advance, £30. Of course it is not *all* advance, as your pay will have been going on from the date of your appointment.

EXTRA PAY AND ALLOWANCES.

The following extra pay and allowances are paid to Naval Medical Officers under the conditions stated below:—

	At Home.	Abroad.
Inspectors-General, in lieu of provisions for their servants, and of the ordinary allowance for provisions for themselves,	£54	£130
Deputy Inspectors-General, Staff-Surgeons, and Surgeons, do. do.	£35	£112
Assistant-Surgeons, do. do.	£30	£108

Staff-Surgeons, when serving in Flag Ships on Foreign Stations, are allowed extra pay of five shillings per diem.

Staff-Surgeons, Surgeons, and Assistant-Surgeons, when serving in ships in which there is no accommodation for residing on board, as in Drill Ships for the Royal Naval Reserve, are allowed £50 per annum for lodgings, and one and sixpence per diem, in addition, in lieu of ship's rations,

Whenever Medical Officers are employed on extra duty, they are allowed such extra pay, as it may appear to the Lords Commissioners of the Admiralty, the nature of the service merits.

Medical Officers, when travelling on the Public Service, are allowed on the home stations—in addition to all expenses of first-class fare by rail or otherwise—for subsistence :—

	Special Service occupying 12 hours.	Ditto for every 24 hours.
Inspectors-General and Deputy Inspectors-General, . .	£0 12 0	£1 0 0
Staff-Surgeons and Surgeons, . .	0 7 6	0 10 0
Assistant-Surgeons, . . .	0 6 0	0 7 6

Formerly joining a ship was no joke.

First came your *mess entrance*, varying from £10 to £20.

In addition to this you had to furnish your cabin with everything you required in it. It would probably cost you from £10 to £15 to furnish it even very plainly. *Mais tout cela est changé.* Every article of mess traps is now furnished by the Admiralty *gratis*. The same with your cabin furniture—every necessary article except bedding is supplied from the dockyards.

An officer on joining his ship has, therefore, nothing more to pay than his mess subscription monthly. This varies in ships according to the station they are on, from £2 10s. to £3 10s. per month. This subscription does not include anything for wines or liquors of any kind. Whatever amount of these you may consume will be paid for by you, separately, at the end of each month or quarter. But as all wines are permitted, by sanction of the Admiralty, to be shipped free of duty, you drink them so much cheaper on board, than you could the same qualities of wine on shore.

The monthly subscription, of say £3, with the Government allowance of £11 3s. 8d. per annum to each member in lieu of provisions, is generally found sufficient to meet all ordinary expenses of messing.

It is the custom in all wardroom messes to have an extra dinner on two days of the week—generally Monday and Thursday. The days so selected are styled *field days*. It is on these days that guests are invited to dine *by the mess*.

The guests thus invited are called *public guests*, and such invitations entail no extra subscription from any one, except for the extra wine consumed.

It is usual to invite the Captain, and any other superior officer that may be on board, once a week—the other public guests are so many of the junior officers of the ship; and, if in port, officers of the sister service, and other public functionaries.

The Captain, or Admiral, if there be one board, usually has two or three wardroom, and two or three gunroom, officers to dine with him on every other day of the week, than that on which he dines in the wardroom.

Any member of the wardroom mess inviting a private friend to dine with him on board, pays usually from 2s. 6d. to 3s. 6d. (according to the rule of the mess) for his friend's dinner, in addition to any extra expense for wine.

The foregoing are the whole of the ordinary, and extraordinary, expenses of messing in the wardrooms of Her Majesty's ships; and which should not, with drinking a reasonable quantity of wine, beer, etc., exceed fifty guineas per annum.

Officers in the Navy, wherever they may be serving, can remit, by the Paymaster of the ship, without any expense, any portion, or the whole, of their pay that may be due to them, on the last day of each quarter.

SERVANTS.

Assistant-Surgeons are allowed only a half a servant each; or, in other words, a servant between two of them.

These servants are entered on the ship's books with the rating of *officer's servant*. Their pay from the Admiralty is about £17 per annum and their provisions; and where they are well-conducted, attentive lads, it is usual for each of their masters to give them 10s. a month; which makes their pay up to about £29 per annum.

This sum of 10s. monthly from the masters is entirely gratuitous, and, of course, may be withheld at the pleasure, or rather the *displeasure*, of the master.

PROMOTIONS.

An Assistant-Surgeon having served three years may be examined as to his qualifications for promotion to the rank of Surgeon. If he be serving abroad, he may, if he wish it, be examined *provisionally* by an Inspector, or Deputy Inspector-General and three Surgeons; and as soon after his arrival in England as may be convenient for him, to present himself at Somerset House, for his regular and final examination.

To enable Assistant-Surgeons to pass this examination satisfactorily they are granted, on application, two months' leave of absence to prepare themselves for it.

The use of passing the provisional examination abroad is, that the Assistant-Surgeon, having served five years, is then eligible for promotion into any vacancy that may occur, as *Acting*-Surgeon.

If the vacancy occurring shall have been caused by the death of an officer of superior rank, this promotion as *Acting Surgeon* will be confirmed as Surgeon on passing the regular examination at Somerset House.

If the vacancy has occurred from any other cause than that of death, the Assistant-Surgeon appointed to fill it, whether he may have passed only provisionally or finally, will be appointed only as *Acting*-Surgeon until the pleasure of the Admiralty be known; who may either confirm him in it, or supersede him by the appointment of a Surgeon from half-pay.

Surgeons are promoted to the rank of Staff-Surgeons on twenty years' service, provided that ten years has been completed since passing for the rank of Surgeon.

By an Admiralty regulation dated the 12th of July last, promotion to Staff-Surgeon is to be open to officers for distinguished or special services, although they may not have completed twenty years' service.

An officer may be promoted to the rank of Inspector-General, on the completion of thirteen years' service from the date of his entry in the Royal Navy.

PENSIONS OF MEDICAL OFFICERS.

Besides the half-pay awarded to Medical Officers, there are three Good-service Pensions of 10s. each per diem awarded to the three Inspectors-General, who have completed the longest and most meritorious services.

There is also one Greenwich Hospital Pension of £80 per annum, awarded to a Deputy Inspector-General.

There are fourteen other Greenwich Hospital Pensions of £50 each per annum, awarded to those fourteen Deputy Inspectors-General, Staff-Surgeons, and Surgeons, who are considered by the Admiralty, to be most deserving of them.

PRIZE-MONEY.

Medical Officers share in the proceeds of all Prizes captured from the enemy, of captures and seizures under the several Acts of Parliament passed, relating to the Revenues of customs, and to trade and Navigation, for the abolition of the slave trade, for the capture and destruction of pirates and piratical vessels; and of the rewards conferred for the same; as also in the awards of all salvage granted to the crews of Her Majesty's ships and vessels of war, with other officers of corresponding ranks.

ENGLISH POOR-LAW MEDICAL SERVICE.

Prior to the Metropolitan Poor Act of the present year, the English Poor-law Medical Service may be said to have been in the hands of the Guardians, supervised by the Poor-law Board. Each parish in England and Wales had its Guardians of the poor, and these parishes were grouped together to form unions. The unions were divided into districts for medical relief. Union Medical Officers, therefore, have the care of a district, or sometimes the care of the workhouse of the union—sometimes of both. The officer was elected by the Guardians, and the appointment approved by the Board. He was required to have a medical and a surgical qualification. In some instances these were specified, but almost always the London College of Surgeons and Apothecaries' Hall, were the two most favoured diplomas. For this reason London students will still continue to have their qualifications whatever else they may add to them. These appointments are not lucrative. In some cases the salary is very low. They are, however, sought after by young men as a means of getting into practice, and are often almost obligatory in the country to prevent fresh opposition being introduced. The Metropolitan Poor-law Act, 1867, assimilates the Poor-law, so far as London is concerned, to that which has worked so well in Ireland, and it will probably shortly be extended to the country. It establishes in London Asylums and Dispensaries, and distributes the cost of supporting them over the metropolis. The appointment of the Medical Officer will be made by the Dispensary Committee, but the Poor-law Board has, however, to modify many of the arrangements. The Poor-law Board now having been made a permanent body with increased powers, by an Act lately passed, no doubt very great improvements will be effected.

IRISH POOR-LAW MEDICAL SERVICE.

The appointments which come directly under the head of the Poor-law are those to Dispensaries and Union Hospitals. By the latest statistics there were 716 Dispensary Districts in Ireland; but as there are sometimes several Dispensaries to a single district, the number of Dispensaries was about 1000. Each of those Dispensaries, however, has not a separate Medical Officer, there being at present 773 Dispensary Doctors in Ireland. Each district is under the direct control of a committee composed of the neighbouring landholders; the appointments of Medical

and other officers are made by this committee, and the entire management of the district is under their control. Their acts are, however, subject to the approval of the Poor-Law Commissioners, who have the power either of interposing their *veto* on any appointment, or even of expelling an officer by a "sealed order," without trial or accusation, and without the resource of appeal or investigation. The salaries of Medical Officers of these districts vary from £100 to £20 a year, the great majority being from £50 to £75. This salary is paid by the Board of Guardians, and no increase or decrease can be made in the amount without their assent and that of the Commissioners. Under the late Sanitary Act the Committee made recompense to the Medical Officer for special services, such as those during an epidemic of cholera, or for Sanitary reports. The qualifications for the Medical charge of a Dispensary or Workhouse have, by a late order, been fixed at—a licence in Surgery, a Diploma in Medicine and a Diploma in Midwifery, and the candidate must be at least twenty-three years of age. The success of an applicant, depends, however, to a great extent on his local interest and influence with individual members of the committee, who are wont to discover particular aptitude for the position in the person or character of their own relatives which they seldom observe in a stranger. There is no pension, superannuation, or allowance for Poor-law Medical Officers, and as their salary is almost always quite insufficient for their maintenance, they must choose a proper field for private practice, or they can never hope to attain an independent position.

The number of Unions in Ireland is 163, to each of which is attached a Medical Officer, who is appointed and controlled by the Board of Guardians in the same manner as the Dispensary Surgeon is by his committee. The salary is usually better than that of the Dispensary Doctor, and the duties of a more easy and satisfactory description.

HAVING PASSED—WHAT THEN?

The student in medicine having obtained his legal qualifications, resembles a traveller, who, having toiled through the valley, and to the top of the ridge of mountains beyond, finds himself somewhat disappointed by the landscape, and puzzled by the necessity of choosing one of the many pathways which are open to him beyond. Every effort of which he has been capable has been directed by the candidate for medical honours to the best mode of securing his diplomas. Having obtained the licence to practise, he is very often sorely puzzled how to make use of the liberty he has gained. Let us glance for a moment at the paths of life open to him. Assuming our subject to be neither more nor less than an average man, he may decide upon any one of the following courses, viz:—private practice, public appointments under the Poor-law, the Navy, the Army, the Emigration Service, the Royal Mail Service, the American liners. Colonial Practice, and medical assistantship.

With reference to private practice, it is not sufficiently understood that the system of medical practice in England differs wholly from that which prevails in Ireland, and that a gentleman who may be well qualified to enter upon private practice in the latter, will find himself almost wholly unsuited to achieve success in the former. The same rule applies to some extent to Scotland. The Dispensary, as it exists in Ireland, is a totally different establishment from that which bears the same name in England. To enter private practice in Ireland costs little, and except in the better class of towns, such practice is worth little without the Poor-law appointment; in England it is almost impossible to get into private practice without money to purchase the succession to a connection already established.

The modes of obtaining appointments in the army and navy or under the Poor-law Board, are noticed in another column, but we may remark in passing that service in the navy is unquestionably a great bar to entrance upon private practice afterwards—especially in England and Scotland. To obtain access to the emigration service, it is necessary to apply to the commissioners; this service pays pretty liberally to those who are content to remain in it. On this point we cannot do better than quote from Mr. Baxter Langley's *Via Medica*, a work to which we propose to give a more extended notice hereafter; at page 84, the writer says:—

"Persons professing to be captains of ships, occasionally advertise that they can secure appointments for young surgeons on vessels belonging to the best "lines," and when their victims call (or write) they are induced to pay from half-a-guinea to two pounds, to secure the good offices of the pseudo-captain; but they never get the appointments, and rarely recover back what they have paid. . . *Apropos* of ship-appointments, they are mostly secured by private interest; those under the Commissioners of Emigration are subject to great competition; the Peninsular and Oriental Company's appointments are still more eagerly sought, and are therefore more difficult to secure; next, in order, perhaps, might be placed the private firms and the American packets. The Royal Mail service is more accessible because all the new appointments are made to the West India stations, from which the medical officers are promoted to other and more eligible stations."

The remaining alternative for the student who has obtained his licence or diploma is to go out as a Medical Assistant. Such appointments are not to be had for asking, as some of our correspondents seem to suppose; and furthermore, they require more qualifications than at first sight appear. Scotch students are not suitable for practice in Ireland, and are not readily adapted to English practice; there is a prejudice against Irish students in Scotland and England; nevertheless, a large number find employment in the latter. As an introduction to the responsibilities of private practice, assistantship is most valuable, and, in fact, is the only sphere in which the difference between hospital practice and private practice can be fully understood before entrance upon the sole responsibility involved in the last. Even if the graduate have sufficient means at his disposal to purchase a practice in England, he would be, in our opinion, extremely unwise to do so, without some experience in the capacity of assistant previously in some general practice.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

REGISTRATION OF MEDICAL STUDENTS.

The General Council of Medical Education and Registration have adopted a series of recommendations which, though it is highly desirable that they should be adopted, are not practically compulsory on licensing bodies. Our space does not enable us to give them *in extenso*.

Every medical student shall be registered according to the form supplied by the branch registrar, after he has passed a preliminary examination. The commencement of professional study shall not be earlier than fifteen days before registration. The age of twenty-one shall be the earliest at which a candidate shall be qualified.

N.B.—After October 1st, 1868, the following subjects shall be required of candidates for preliminary examination, viz.:—

Compulsory Subjects—

1. English Language, including Grammar and Composition.
2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations.
3. Geometry: first two books of Euclid.
4. Latin, including Translation and Grammar; and
5. One of the following

Optional Subjects—

1. Greek After the year 1869, Greek shall be one of the compulsory subjects.
2. French.
3. German.
4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

Students who shall have commenced their professional studies more than fifteen days before the 2nd of October, 1865, are not required to be registered by any branch registrar.

ARMY MEDICAL DEPARTMENT.

THE Assistant-Surgeon is subjected to three separate Examinations within the first ten years of his service, each examination having a definite object. The first to ascertain, previous to his admission into the service as a candidate, his scientific and professional education, and to test his acquirements in the various branches of professional knowledge. The second, after having passed through a course of special instruction in the Army Medical School to test his knowledge of the special duties of an Army Medical Officer; and the third, previous to his promotion, to ascertain that he has kept pace with the progress of Medical Science.

1. Every candidate must be unmarried. He must produce a birth certificate or a certificate of baptism, or if neither can be obtained, an affidavit from one of the parents or from some other near relative will be accepted. The certificate must show that the candidate is not above twenty-eight, nor under twenty-one. He must also produce certificates of moral character, one from the parochial minister if possible.

2. The candidate must make a declaration that he labours under no mental or constitutional disease, or any imperfection that can interfere with the discharge of the duties in any climate. His physical fitness will be determined by a board of medical officers who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of Hyopia would not be considered a disqualification provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease existed. Every candidate must also be free from organic disease of other organs, and from constitutional weakness or other disability likely to unfit him for military service in any climate. He must also attest his readiness to engage for general service immediately on being gazetted.

3. The candidate must possess a diploma or licence in surgery, as well as a degree or licence in medicine.

4. Certificates of age and of character and of registration under the medical act must be lodged at the Army Medical Department, at least one week before the examination.

5. On producing the foregoing qualifications the candidate will be examined in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics, the Diseases of women and children, Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination of medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside). The eligibility of each candidate will be determined by the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, and Botany, with special reference to Materia Medica; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the Examination by successful candidates, and whose position on the list will thus be improved.

The subjects for this part of the examination will be taken from the following books:—

Dallas, Animal Kingdom; Rymer Jones, Animal Kingdom; and Milne Edwards, Histoire Naturelle; Lindley's School Botany; Lindley's Medical and Economic Botany; Henfry's Elementary course of Botany.

Candidates who may desire it may also be examined in the elements of Physics and in Physical Geography. The following books are recommended:—

Golding Bird and Brook's Natural Philosophy; Mrs. Somerville, Physical Geography.

6. The names of candidates who pass will be sent to the Director-General, and communicated to the professors of the Army Medical School. The names will be arranged according to merit.

7. After passing his preliminary examination, every candidate must attend practical instruction at the Army medical School.—See Army Medical Service, page 259.

Note.—All communications to the Director-General, prepaid, to be forwarded, addressed *outside* to "The Under-Secretary of State for War," with the words "Army Medical Department" at the left-hand corner.

Examination of Assistant-Surgeons previous to Promotion.

This examination may be taken at any time after the Assistant-Surgeon has served five years.

A series of printed questions will be sent by the Director-General to the principal medical officers of stations where Assistant-Surgeons may be serving, who will deliver these sealed questions to the Assistant-Surgeons, and to see that they are answered without the assistance of books, notes or communication with any other person. The answers are to be signed, and delivered sealed to the principal medical officer, who is to send them, unopened, to the Director-General, together with a certificate from the surgeon of the Regiment, or other superior Medical Officer, that the Assistant-Surgeon has availed himself of every opportunity of practising surgical operations on the dead body.

The Assistant-Surgeon will also be required to transmit a Medico-Topographical account of the station where he may happen to be, or of some other station where he may have been resident, or else a Medico-Statistical report of his regiment for twelve months.

If the Examining Board and the Director-General are satisfied with the certificates and answers, and with the Report, the Assistant-Surgeon will be held qualified for promotion.

ROYAL WARRANT FOR PAY AND NON-EFFECTIVE PAY OF MEDICAL OFFICERS.

1. The daily rates of pay shall be as follows:—

Medical Staff.	Pay. Daily. £ s. d.
INSPECTOR-GENERAL	2 0 0
DEPUTY INSPECTOR-GENERAL	1 10 0
SURGEON-MAJOR	1 7 0
After 25 years' service	1 7 0
SURGEON	0 17 6
ASSISTANT-SURGEON, on appointment ...	0 10 0
After 5 years' service	0 12 6
„ 10 „	0 15 0
„ 15 „	0 17 6
Apothecaries.	
APOTHECARIES	0 9 0
After 5 years' service	0 10 6
„ 10 „	0 12 0
„ 20 „	0 15 0
„ 30 „	0 18 0

2 Every Candidate for a Commission as Assistant-Surgeon shall be unmarried, and shall possess such certificates as would qualify a civilian to practise Medicine and Surgery; and before receiving a Commission shall pass an examination in Military Medicine, Surgery, Hygiene, and Pathology, after attending the authorised course in a General Military Hospital.

3. An Assistant-Surgeon shall pass such examination as our Secretary of State for War may require, and shall have served on full pay with the Commission of Assistant-Surgeon for five years, of which two shall have been passed in or with a Regiment or Depot Battalion, before he can be promoted to the rank of Surgeon.

4. Assistant-Surgeons shall, as a general rule, be promoted to the rank of Surgeon in the order of their seniority in the service. In cases of distinguished service, however, an Assistant-Surgeon may be promoted without reference to seniority; and in such cases, the recommendation detailing the services for which the Officer is proposed for promotion shall be published in the General Orders, and in the Gazette.

10. Good service Pensions shall be awarded under such regulations as shall be from time to time determined. Six of the most meritorious medical officers of our army, shall be named our Honorary Physicians, and six our Honorary Surgeons.

11. Medical officers may retire on half-pay after 20 years' service; Surgeons-Major, Surgeons, or Assistant-Surgeons, shall be placed on the retired list at the age of 55, and Inspectors-General and Deputy Inspectors-General at the age of 65.

14. An Apothecary shall have the right to retire on half-pay after 30 years' good service.

Service on the West Coast of Africa.

15. A Medical Officer volunteering for service on the West Coast shall serve on the Coast for a period of at least twelve months and shall be governed by the following regulations:—

16. Each year reckon towards promotion and retirement as two years of service, but it shall not so reckon towards increasing pay, or qualification for the rank of Surgeon-Major. If an Officer shall be permitted, at his own wish, to prolong his stay on the Coast, his further service shall be allowed to reckon in proportion.

17. For each year's service on the Coast, a Medical Officer shall be entitled to a year's leave at home, and for every additional period beyond a year he shall have an equivalent extension of leave.

NON-EFFECTIVE PAY.

18. A Medical Officer placed on half-pay by reduction of establishment, or in consequence of ill-health, or age, shall be entitled to half-pay.

INSPECTOR-GENERAL ...	after 30 years' service	...	1	17	0
DEPUTY INSPECTOR-GENERAL	30	,,	...	1	5	6
SURGEON-MAJOR ...	,,	25	,,	...	1	0	0
SURGEON ,, ...	,,	15	,,	...	0	13	6
,, ,, ...	,,	10	,,	...	0	11	0
ASSISTANT-SURGEON ..	,,	10	,,	...	0	10	0
,, ,, ...	,,	5	,,	...	0	8	0
,, ,, ...	under	5	,,	...	0	6	0

19. The rate of half-pay awarded to officers retiring for their own convenience, after twenty years' service, shall not exceed one-half of their full-pay at the time of retirement.

20. Every Medical Officer who shall retire after service for 25 years, shall be granted half-pay equal to seven-tenths of his pay, provided he shall have served three years in his rank or abroad for ten years. An Officer of 25 years' service, whose service falls within neither of these conditions, shall be entitled to only seven-tenths of his pay.

23. An Apothecary shall be granted pay at the following daily rate, if placed on half-pay by reduction of establishment, or on account of age, or through ill-health.

APOTHECARY TO THE FORCES...	after 30 years' service	9s.	a-day.
,, ,, ...	,,	25	,,	8s.	,,
,, ,, ...	,,	20	,,	7s.	,,
,, ,, ...	,,	15	,,	6s.	,,
,, ,, ...	,,	10	,,	5s.	,,

NAVAL MEDICAL DEPARTMENT.

Admiralty, May 7, 1867.

1. A candidate for entry into the Royal Navy shall make a written application, addressed to the Secretary of the Admiralty; on the receipt of which he will be furnished with the regulations, and a printed form, to be filled up by him, to show if he possesses the required qualifications.

2. As vacancies occur, the candidates will be ordered to attend at the Admiralty Office on the first Tuesday in alternate months; but no person can be admitted as an Assistant-Surgeon unless he can produce evidence that his name has been placed on the Medical Register as legally qualified to practise both medicine and surgery. And further, he will be required to make a declaration that he is free from any mental or bodily disease, defect, or infirmity which could interfere with the efficient discharge of his duties as a Medical Officer in the navy.*

3. Each candidate must produce a certificate of good moral character, signed by the clergyman or magistrate of the district.

4. That he is not less than twenty nor more than twenty-eight years of age.

5. That he has received a preliminary Classical Education.

6. That subsequently to the age of eighteen he has actually attended a hospital for eighteen months, in which the average number of patients is not less than 100.

7. That he has been engaged in actual dissection for twelve months, and that he has performed the principal capital and minor operations on the dead body under a qualified teacher. The certificates of Practical Anatomy must state the number of subjects or parts dissected by the candidate.

8. On producing the above certificates he will be examined before a Board of Naval Medical Officers on the following subjects, viz.:—

Anatomy.	Chemistry.
Surgery.	Materia Medica.
Physiology, or Institutes of Medicine.	Midwifery.
Practice of Medicine.	Botany.

9. Although the above are the only qualifications absolutely required, a favourable consideration will be given to the degree of M.D. from a university, or to those, who, by possessing a knowledge of the diseases of the eye, or of any branch of science, such as Medical Jurisprudence, Natural History, and Natural Philosophy, appear to be more peculiarly eligible for admission into the Service, observing, however, that lectures on these or any other subjects cannot be admitted as compensating for any deficiency in those required by the Regulations.

10. Candidates found competent, will be forthwith nominated to one of Her Majesty's Ships, or to a Naval Hospital at home; or should their services not be immediately required, their names will be duly registered for early appointments as vacancies may occur. But candidates admitted into the Naval Medical Service must serve in whatever ship they may be appointed to; and that in the event of their being unable to do so from sea-sickness, their names cannot be continued on the Naval Medical List, nor can they, of course, be allowed half-pay.

11. No Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years, two in a ship actually employed at sea, after which he will be required to pass an examination before a Board of Naval Medical Officers.

12. Assistant-Surgeons at home, after completing the stipulated five years' service, may be granted two months' leave of absence on full pay on condition of their resuming their studies at a Medical School or hospital.

13. A limited number of those candidates, who pass the best examination on entering the service, shall be promoted annually to the rank of Surgeon at an earlier period than would occur under ordinary circumstances, as follows:—

The candidate who passes the best examination of his year—after five years' service.

The candidate who passes the second best examination—after six years' service.

The candidate who passes the third best examination—after seven years' service.

Provided, however, that their second examinations are passed in an equally creditable manner, and that their conduct has in all respects been satisfactory.

Regulations and Bye-Laws of Licensing Bodies in England.

UNIVERSITY OF OXFORD.

FACULTY OF MEDICINE.

Regius Professor of Medicine H. W. Acland, M.D., LL.D.
Professor of Mineralogy, M. H. N. Story Maskelyne, M.A.
Professor of Chemistry, Sir B. C. Brodie, Bart., F.R.S.

* His physical fitness will be determined by the Board of Medical Officers, who will be required to certify that his vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses, and that he is free from organic disease, constitutional weakness, or other disability likely to unfit him for the Naval Service in any climate.

Linacre Professor of Physiology, G. Rolleston, M.D., F.R.S.
Professor of Zoology, J. O. Westwood, M.A., F.L.S.
Lee's Reader in Anatomy, W. S. Church, B A.
Lee's Reader in Chemistry, A. G. V. Harcourt, M.A.
Demonstrator in Anatomy, Charles Robertson, Esq.
Sherardian Professor of Botany, G. G. B. Daubeny, M.D.
Registrar, E. W. Rowden, D.C L.

The affairs of the University are managed, and its regulations are made, either by a Convocation consisting of all Doctors in Divinity, Law, and Medicine, and Masters of Arts, or by the resident Doctors and Masters, or by the Council.

There are 24 Colleges and Halls in Oxford. Every Student must reside in one or other of these for three years.

During these three years, he has to pass at least two Examinations in Arts, and one in either Mathematics, Natural Science, or Law and Modern History, or a third in Arts.

A Student deciding to graduate in Medicine should proceed:

1st. To enter at a College or Hall.

2nd. To pass the requisite Examination in Arts.

3rd. After passing the Examination for the decree of B.A., to spend two years in study* prior to Examination for Bachelor of Medicine; and two years more prior to the final or practical Examination for the same Degree. These four years of medical study may be spent in any approved Medical school.

This Degree confers the Licence to Practise. There is no subsequent Examination for the Degree of Doctor in Medicine. A dissertation has to be publicly read three years after the B.M.

The Medical Examinations take place annually in the Michælmas Term.

Scholarships of about the value of £75 are obtainable at Christ-Church, Magdalen, and other Colleges by competitive Examination in Natural Science. Every year a Radcliffe Travelling Fellowship is competed for by any who, having taken a first class in the Natural Science School, propose to study Medicine. The Travelling Fellows receive £200 a year for three years, half this period being spent in study abroad.

Regulation for Degrees in Medicine.

No one can become a Bachelor of Medicine unless he has passed all the Examinations required for the degree of B.A., and has also spent four years in scientific and professional study, after the last classical examination.

1. Candidates for the B.M. must pass two examinations, each of which is held yearly, usually in November, the first by the Regius Professor of Medicine and three Masters of Arts or Doctors, nominated yearly by the Vice-Chancellor, the second by the Regius Professor and two Doctors of Medicine. Each examination is conducted partly in writing, partly *viva voce*, and part of each is practical. The subjects of the first Examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology, to a certain extent, and those parts of Mechanical Philosophy, Botany and Chemistry, which illustrate Medicine. Those of the second are the Theory and Practice of Medicine (including diseases of women and children) the Materia Medica, Therapeutics, Pathology, the principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every Candidate at this second is examined in two ancient authors, Hippocrates, Aretæus, Galen, and Celsus, or in one of those four and in some modern author approved by the Regius Professor.†

Before a Candidate is admitted to the first examination, he must have completed eight Terms from his Second Public Examination for the degree of B.A., unless he was placed in the First or Second Class in Natural Science, in which case, if he received from the Public Examiners a special Certificate in Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this Examination at once, and need not then be examined again in any Science specified in such Certificate, or if he have taken up an increased amount of classical work at *moderations* he may then count his scientific studies from the date of that examination, provided always he obtain honour in the Natural Science School. Before a Candidate is admitted to the second Examination, he must have completed sixteen Terms from the date of the same *Testamur*, and two years from the first Medical Examination, and must deliver satisfactory Certificates of his attendance at some hospital Every Candidate at either examination is required to give the Professor notice a fortnight at least before the Examination.

* If he have taken the higher honours in the Natural Science School, he may go in for the 1st M.B. Examination on the first opportunity.
† Such modern authors are Morgagni, Sydenham, Boerhaave.

No one from another University can be incorporated as a Graduate in Medicine without passing these two Examinations.

2. A Bachelor of Medicine wishing to proceed to the degree of Doctor is required to read publicly, in the presence of the Regius Professor, a Dissertation composed by himself on some Medical subject approved by the Professor, and to deliver to him a copy of it.

UNIVERSITY OF CAMBRIDGE.

Professorships.	*Professors.*
Regius Physic	H. J. H. Bond, M.D.
Chemistry	G. D. Liveing, M.A.
Anatomy	W. Clark, M.D., F.R.S.
Botany	C. C. Babington, M.A., F.R.S., F.L.S.
Downing Medicine	W. W. Fisher, M.D.

Lectures.	*Lecturers.*
Linacre on Medicine	C. E. Paget, M.D.
Human Anatomy	G. M. Humphry, M.D., F.R.S.
Surgery	
Chemistry	G. D. Liveing, M.A.
Practical Chemistry	
Superintendence of Dissections	G. F. Helm, B.A., F.R.C.S.

Medical students are required to enter at one of the seventeen Colleges (it matters not which), and reside there nine terms (nearly three years), during the first half of which time they are generally occupied in the study of Classics, Mathematics, &c., in their respective Colleges; then, having passed the previous Examination in these subjects, analogous to the preliminary examination required at the University of London, they can pursue the study of Medicine, attend the Practice of the Hospital, and the professor's lectures above specified. This done, they may continue their medical studies in Cambridge or elsewhere.

Or he may proceed to take a degree in Arts, either continuing mathematical and classical study, and passing the ordinary examination for B.A., or going out in the Mathematical or Classical Tripos; or he may pursue the study of Natural Science, and take the B.A. degree, by going out in the Natural Sciences Tripos. This last plan is preferred by many medical students, the subjects (Chemistry, Botany, Comparative Anatomy, &c.) forming part of the medical study, and students are not required to be again examined in any of those subjects. Those who proceed to B.A. through a Tripos examination are said to take the degree with honours.

PROCEEDINGS IN PHYSIC. M.B.

The Candidate for M B. must have been engaged five years in medical study, of which six terms must have been in the University. Only four years of medical study, of which *four* terms are in the University, are required of those who graduate with honours as B.A.

There are two examinations for M.B. The first after three years of medical study. The subjects are Chemistry, Botany, Elements of Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, Pathology, Portions of Celsus, Hippocrates, and Aretæus.

The student, before admission to this first examination, must produce certificates of lectures on Chemistry, Botany, Comparative Anatomy, Anatomy and Physiology, Pathology, Materia Medica and Pharmacy, of Dissection, and of Hospital Practice.

The second examination is after the completion of medical study. The subjects are Pathology and Practice of Physic, Clinical Medicine, Medical Jurisprudence, Surgical and Obstetrical Diseases. The student, before examination, must produce certificates on lectures on Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Obstetrical Medicine, and of Hospital Practice for three years.

After the examinations have been passed, the candidate reads a thesis in English by himself. He is then questioned on the subject of the thesis, and on other subjects of a more general nature.

M.C.

The candidate is required to pursue the same course as for M.B. during his residence in the University, and to pass the same first examination.

He must attend the Surgical practice of a hospital for three years, and be House-Surgeon or Dresser during six months; must attend lectures on Human Anatomy, on Surgery, Clinical Surgery, Midwifery (with ten cases), and Medical Jurisprudence.

The second examination, after the completion of study, is in Practical and Surgical Anatomy, Principles and Practice of Surgery, and Clinical Surgery, Midwifery and Medical Jurisprudence.

The expenses of residence, lectures, &c., at College—*i.e.*, in the University, need not exceed £150 per annum. That is quite sufficient; and an intelligent student, who has been well taught at school, may be pretty sure of defraying part of the expense by obtaining one of the many scholarships at his College. These range in value from £20 to £80 a-year. They are chiefly given for mathematical and classical proficiency. Some may be obtained at once; even before entering, and notices of the times of examination for these, which vary at the different Colleges, are given from time to time under the head "University Intelligence," in the *Times* and other newspapers, and information respecting them is forwarded to most schoolmasters. Students sometimes try for these Scholarships at several Colleges in succession. At Downing and Sidney Colleges the examination is not confined to Classics and Mathematics, but Natural Science is taken into account. The greater number of the Scholarships are given by competition, after a year's residence. One at Caius is given for Anatomy, another for Chemistry.

UNIVERSITY OF DURHAM.

This body now grants the degrees of Bachelor and Doctor of Medicine and Master of Surgery, and also a licence in Medicine. For the last-named diploma, residence is not imperative. Before proceeding to the M.B., the licentiate must have obtained a B.A., or passed an equivalent examination. Candidates for M.D. must be bachelors of the standing of 21 terms. The hospital practice is attended at the Newcastle Infirmary. There is a medical scholarship of the annual value of £25, tenable for 4 years, open to competition among the students.

The fees, both University and Collegiate, are moderate.

Full particulars may be had on application to the Registrar.

UNIVERSITY OF LONDON.

The medical degrees of this university have now obtained a reputation second to none, and no student can therefore propose to himself a higher qualification. The training is rather longer than that required for the college and hall combined, or for the diploma of the two royal colleges. The examinations are very stringent, and it is in after years that the student will feel the gratification of having obtained such a degree. Every student is required to go through the full course of hospital studies *after* he has passed the matriculation examination. It is, therefore, very desirable he should matriculate before entering a medical school, otherwise two years will be lost. The matriculation examination of this university is accepted as a preliminary by the Medical Council, and therefore the labour bestowed in preparation will serve the student's purpose even if he do not proceed to a degree. The medical degrees of the University are Bachelor and Doctor of Medicine, and Bachelor and Master in Surgery. Degrees of Bachelor and Doctor of Science are also now obtainable. There are, at each stage of the graduate's career, examinations for honours, which afford the student the opportunity of gaining highly prized distinctions in various branches. There are also scholarships for the most successful.

EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE.

Candidates are required—1. To have passed the matriculation examination of this University, or to have taken a degree in Arts in some other University of the United Kingdom. 2. To have been engaged in their professional studies four years subsequently to matriculation; one year, at least, of the four in the United Kingdom. 3. To pass the Preliminary Scientific Examination and two in Medicine.

The *Preliminary Scientific Examination* takes place on the third Monday in July. The candidate must have completed his seventeenth year, and have either passed the Matriculation Examination or taken a degree in Arts.

Fourteen days' notice must be given to the registrar previous to the examination.

Any candidate who has passed the Preliminary Scientific Examination may, on the Tuesday and Wednesday in the second week after the pass examination, be examined for Honours in Chemistry and Natural Philosophy, and on the following Thursday and Friday in Biology.

FIRST M.B. EXAMINATION

Commences on the last Monday in July.

A candidate must produce certificates to the following effect:—1. That he has completed his nineteenth year. 2. Passed the Preliminary Scientific Examination at least one year previously. 3. Been a student subsequently to Matriculation during two years at a recognised medical school; and that he has attended a course of lectures on three of the subjects in the following list:—Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Midwifery and Diseases peculiar to Women and Infants, Surgery, Medicine. 4. That he has subsequently to Matriculation dissected during two winter sessions. 5. Attended a course of Practical Chemistry, comprehending the more important processes of General and Pharmaceutical Chemistry; the presence and nature of poisons; the examination of mineral waters, animal secretions, urinary deposits, calculi, &c. 6. That he has attended to Practical Pharmacy.

These certificates must be transmitted fourteen days before the examination.

Candidates are examined in Anatomy, Physiology, Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry, partly by printed papers and partly *viva voce*, and by experiments and demonstrations.

The examinations for Honours take place in the week following the First M.B. examination, and are conducted by means of printed papers.

SECOND M.B. EXAMINATION.

This examination commences on the first Monday in November.

No candidate is admitted within two academical years of the time of passing the first examination, nor without producing certificates:—1. Of having passed the first M.B. examination. 2. Of having subsequently attended a course of lectures on two more of the subjects specified. 3. Of having conducted twenty labours. 4. Surgical hospital during two years, and lectures on clinical surgery. 5. Medical hospital two years, with lectures on clinical medicine. 6. Of having, subsequently to hospital practice, attended to practical medicine, surgery, or midwifery, with special charge of patients, in an hospital, infirmary, dispensary, or parochial union, during six months. Certificates of moral character from a teacher in the last school at which candidates have studied.

Candidates are examined in General Pathology, General Therapeutics and Hygiene; Surgery; Medicine; Midwifery; and Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry; and are partly in writing, and partly oral. They also include examination and report on cases of medical patients; demonstrations from specimens and preparations; practical examination in Forensic Medicine; and writing prescriptions in Latin without abbreviations.

HONOURS.

Any candidate placed in the first division at the Second M.B. examination may be examined for Honours in Medicine, Midwifery, and Forensic Medicine.

The examinations commence in the week following the Second M.B. examination, and are conducted by means of printed papers.

The candidates who most distinguish themselves in this examination will receive respectively—in Medicine, £50 per annum for the next two years, with the style of University Scholar in Medicine; in Midwifery, £30 per annum for the next two years, with the style of University Scholar in Midwifery; in Forensic Medicine, £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine. Also the first and second candidates in each subject will receive a Gold Medal of the value of £5.

BACHELOR OF SURGERY.

The examination for the degree of Bachelor of Surgery takes place once in each year, and commences on the Tuesday following the fourth Monday in November. A candidate is

admitted to this examination on producing certificates to the following effect:—Of having taken the degree of Bachelor of Medicine in this University. Of having attended a course of instruction in operative surgery, and of having operated on the dead subject. These certificates must be transmitted to the registrar at least fourteen days before the examination begins. The fee for this examination is £5. The examinations are conducted by means of printed papers.

Any candidate who has passed the B.S. examination may be examined for honours in Surgery on Tuesday in the week following the commencement of the pass examination.

If in the opinion of the examiners sufficient merit be evinced, the candidate who distinguishes himself the most shall receive £50 per annum for the next two years, with the style of University Scholar in Surgery. The first and second candidates shall also receive a gold medal of the value of £5.

DOCTOR OF MEDICINE.

The examination is on the fourth Monday in November.

No candidate shall be admitted without certificates:—1. Of having taken the degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently, (*a*) to Clinical or Practical Medicine two years; (*b*) to Clinical or Practical Medicine during one year, and of having been engaged during three years in the practice of his profession; (*c*) or of having been engaged during five years in the practice of his profession, either before or after taking the degree. One year of Clinical Medicine, or two years of practice, will be dispensed with in the case of those candidates who at the second M.B. examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability.

Certificates must be transmitted fourteen days before the examination. The examination is conducted by means of printed papers and *viva voce*. Candidates are examined in Logic and Moral Philosophy, and Medicine. The candidate who shall distinguish himself the most will receive a Gold Medal of the value of £20. The fee for each of the Degrees of M.B., B.S., M.S., and M.D. is £5.

ROYAL COLLEGE OF PHYSICIANS, LONDON

THE FELLOWSHIP.

This honour is only bestowed by election. No one can be proposed who is not a Member of four years' standing. The mode of election has long given much dissatisfaction.

THE MEMBERSHIP.

A person may become a Member of this College without holding a degree in Medicine, or indeed any other diploma. This is not very often done; for the Membership gives no *right* to the use of the title doctor, though some Members not possessed of a degree do so style themselves. This is, however, in direct violation of the rules of the College to which a Member pledges himself on admission. The curriculum extends over four years.

Graduates in Medicine of a British University are admitted to an examination for the Membership. Graduates are exempt from some parts of the examination, such as Anatomy and Physiology.

THE LICENCE.

This Diploma authorises the holder to practise Medicine as a Licentiate of the College. Unless a graduate of some university he is forbidden to use the title of doctor, but we fear too many do so. It is a medical diploma for the general practitioner intended to supersede that of the Apothecaries' Company, and, although not likely to do this for some time, is rapidly growing in favour. The examination is conducted by specially appointed examiners, and is complete in the several departments. As this diploma is of importance to Students now commencing their hospital career, we subjoin a summary of the *curriculum* as lately amended by the College:—

THE REGULATIONS.

The regulations relating to candidates for Membership are under revision, and will be issued in October, when they have received the sanction of the College.

LICENTIATES.

Every candidate is to produce evidence—
1. Of having attained the age of twenty-one years. 2. Of moral character. 3. Of having passed a preliminary examination in general education. 4. Of having been registered as a medical student. 5 and 6. Of professional study during four years, of which the first two and one other year shall have been passed at a recognised school, and the Medical Practice at a recognised hospital during two years; and the Surgical Practice during twelve months; and six months clinical study of Diseases peculiar to Women. The last of the four years must be passed at a medical school, hospital, infirmary, or dispensary recognised by the College. 7. Of having studied the following subjects:—Anatomy (with Dissections) and Physiology, two winter sessions of six months each; Chemistry, six months; Practical Chemistry, Materia Medica, Practical Pharmacy, and Botany, three months; Morbid Anatomy, including attendance in the post-mortem room, six months; Principles and Practice of Medicine, two winter sessions of six months each, which should comprise the study of Public Health; Principles and Practice of Surgery, six months; Clinical Medicine, and Clinical Surgery, two winter and two summer sessions, (by Clinical Medicine and Clinical Surgery are intended lectures on cases under observation, or special instruction at the bedside); Midwifery and the Diseases peculiar to Women, three months, (also not less than twenty labours and of proficiency in vaccination); Forensic Medicine, three months. 8. Of having passed the Professional Examination.

THE PROFESSIONAL EXAMINATION.

Every candidate must sign a declaration, stating whether he has been rejected within three months by any examining board.

The examination is divided into two parts. The first or Primary, will be conducted as follows:—First day, written questions on Anatomy and Physiology; second day, written questions on Chemistry, Materia Medica, Practical Pharmacy, and *viva voce* on the subjects stated above. The second part, or Pass, will be—First day, written questions on the Principles and Practice of Medicine; second day, to examine persons labouring under disease, either at the College or in an hospital, and written questions on Midwifery and the Diseases peculiar to Women, and on the Principles and Practice of Surgery; third day, to examine persons labouring under disease in the surgical wards of an hospital, and *viva voce* on the subjects stated above.

The Primary shall not be undergone until after two years at a recognised school, and the Pass not until after four years of professional study, and at least eighteen months after the Primary.

Any candidate who shall fail to pass either of these examinations will not be re-admitted to examination for six months.

Every candidate intending to present himself is to give fourteen days' notice in writing, at the same time transmitting for the Primary of having passed an Arts examination; of having been registered as a student; and of two years of professional study. For the Pass, of four years of professional study; of having attended twenty labours; and of having attained the age of twenty-one years. A testimonial of moral character is required.

The fee for the Primary is five guineas, to the Pass, ten guineas, and there is no further fee for the licence.

Doctors or Bachelors of Medicine of a university and Licentiates of a College of Physicians shall be exempt from the Primary.

Any registered practitioner qualified before 1861, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery, but will be exempted from such other parts of the examination as it may seem to render unnecessary.

ROYAL COLLEGE OF SURGEONS, ENGLAND.

The influence of this college on the profession in England is second to none. Very few surgical appointments are to be had without its diploma. In every parish appointment its membership, if not essential, carries great weight. Hence, most English students intend to prepare themselves for this, which, together with a medical qualification, suffices for every purpose of the general practitioner. The college has two grades. Member and Fellow. It also gives a diploma in midwifery, but this is mostly confined to those who are already members.

THE FELLOWSHIP.

Members of long standing can be admitted by election.

As, however, this grade is also obtainable by examination, this is the more usual mode. Pure surgeons mostly take this diploma though there are many hospital surgeons in London who are only members by examination.

A member of the College of 8 years standing is admitted to examination on the production of a certificate of three fellows, that he has been engaged for 8 years in the practice of surgery and is a fit and proper person to be admitted a fellow. As this qualification is almost beyond the reach of students, and is seldom sought for by them, we omit the regulations relating to it.

In future, candidates for the diploma will be examined in the practice of medicine, and also in the practical employment of splints, bandages, and other surgical appliances.

For the preliminary examination all those recognized by the general council are equally recognized by the college.

The professional examination is divided into two parts. Candidates are admitted to the first at the end of the second year of hospital study.

Registration students are compelled to register at the college; the registration of the general council not being acknowledged by this corporation.

The diploma in midwifery is granted after a brief practical examination to members of the college. Fees—Fellowship, 10 guineas. Members, 20 guineas.

EDUCATION AND EXAMINATION FOR THE DIPLOMA OF MEMBER.

Preliminary General Education.

Candidates who commenced their professional education on or after the first of January, 1861, will be required to produce certificates of having passed one of the examinations in Preliminary Education recognised by the Medical Council.

Candidates not able to produce one will be required to pass an examination in English, Classics, and Mathematics, by the Royal College of Preceptors.

SUBJECTS OF PRELIMINARY EXAMINATION.

Reading aloud; writing from dictation; English grammar; writing a short English composition—such as a description of a place, an account of some useful or natural product, or the like; arithmetic (first four rules, simple and compound, of vulgar fractions, and of decimals); geography of Europe, and particularly of the British Isles; outlines of English history—that is, the succession of the sovereigns, and the leading events of each reign; Euclid, books i. and ii.; translation from the first book of Cæsar's De Bello Gallico. Papers will also be set on the following seven subjects, and each candidate must offer himself on one at least, but no more than four subjects:—Translation of a passage from the first book of Xenophon's Anabasis, in Greek, Voltaire's Historie de Charles XII., and the first two books of Schiller's Geschichte des dreissigjahrigen Krieges; the candidate will also be required to answer questions on the grammar of each subject; mathematics (algebra to simple equations inclusive); mechanics (questions elementary); chemistry (elementary facts); botany and zoology (classification of plants and animals). The quality of the handwriting and the spelling will be taken into account.

N.B.—Each Candidate, prior to Examination, must pay the Fee of £2. The Examination is at present held in June and December.

P.S.—In the subjects for the above Examination during the year 1868, X. B. Saintine's Picciola, and Schiller's Wilhelm Tell will be substituted respectively for Voltaire's Histoire de Charles XII., and Schiller's Geschichte des dreissigjährigen Krieges.

Professional Education.

Professional studies are not recognised prior to examination in General Knowledge. (This regulation applies to candidates who commenced after October, 1862.)

The following will be considered as the commencement of professional education:—Attendance on hospital, or other institution recognized by this College. Instruction as the pupil of a surgeon to an hospital, general dispensary, or union workhouse, or where such practical instruction is afforded as shall be satisfactory to the Council. Attendance on lectures on Anatomy, Physiology, or Chemistry.

The commencement of professional study by pupilage will not be admitted until a certificate shall be furnished for registration at the College by the practitioner whose pupil the candidate shall have become, or by the medical superintendent of the hospital or other institution; and will, consequently, date only from the reception of such certificate, the certificate to be accompanied by proof of having passed the Preliminary Examination.

Candidates will be required to produce the following other certificates:—Of being twenty-one years of age. Of having been engaged during four years in the acquirement of professional knowledge. Practical Pharmacy three months. Lectures on Anatomy during two winters. Dissections, two winters. Lectures on Physiology, two winters. On Surgery, two winters; one course not earlier than the third winter. One course on each of the following—viz., Chemistry, Materia Medica, Medicine, and Midwifery. Of instruction and proficiency in Vaccination. Of having attended, at a recognized hospital, the Practice of Surgery, and clinical lectures on Surgery, during three winter[1] and two summer[2] sessions, and the Practice of Medicine, and clinical lectures on Medicine, during one winter and one summer session. Of having, after two years' professional education, taken charge of patients under a surgeon during six months, at an hospital, general dispensary, or parochial or union infirmary recognized for this purpose, or in such other similar manner as shall afford sufficient opportunity for the acquirement of Practical Surgery.

Certificates from a recognized provincial hospital unconnected with a medical school, will not be received for more than one winter and one summer of the hospital attendance, and clinical lectures will not be necessary, but a certificate of having acted as dresser for six months instead.

Certificates will not be received from London students unless they register at the College their cards of admission to lectures and hospital within fifteen days from the commencement of the session; nor from provincial students, unless their names shall be duly returned.

Candidates who have studied in Scotland or Ireland will be admitted upon the same certificates required by the College of Surgeons of Edinburgh, the Faculty of Physicians of Glasgow, and the College of Surgeons in Ireland, together with a certificate in Vaccination, and evidence of four years' professional study.

Members or licentiates of a College of Surgeons, and graduates in Surgery or Medicine of a university, will be admitted to examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, a certificate in Vaccination, and evidence of at least four years' professional study.

N.B.—At the registration in October, Candidates who shall have commenced subsequently to October, 1862, will be required to produce a Certificate of having passed one or other of the preliminary examinations in general knowledge.

The Professional Examination

Is divided into two parts. The First or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body. The Second or Pass Examination, on Pathology, Surgery, and Surgical Anatomy, is partly written and partly oral, and partly on the use of Surgical apparatus. The Primary Examinations are held in January, April, May, July, and November; and the Pass Examinations generally in the ensuing week respectively Candidates will not be admitted to the Primary Examination until after the termination of their second winter at a recognized school; nor to the Pass Examination until after the fourth year. The fee of five guineas paid by each candidate prior to his Primary Examination will not be returned, but will be allowed on his admission as a member. A candidate having entered his name for either Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself within three months from the date. A candidate referred on the Primary Examination is required, prior to re-examination, to produce a certificate of the performance of dissections during not less than three months subsequently. A candidate referred on the Pass Examination is required to produce a certificate of six months' surgical practice of a recognized hospital, together with lectures on clinical surgery.

1 The Winter Session comprises a period of six months, and, in England, commences on the 1st of October, and terminates on the 31st of March.

2 The Summer Session comprises a period of three months, and, in England, commences on the 1st of May, and terminates on the 31st of July.

APOTHECARIES' SOCIETY OF LONDON.

THE Licence of the Worshipful Society of Apothecaries, is perhaps the most useful medical diploma for the general practitioner in England. The monopoly enjoyed by this body for many years, in this respect, is not easily to be disturbed. The laws of many institutions require their medical officers to hold this diploma, and these laws are not readily altered. Though other medical qualifications are recognised by the Poor-law Board, there is no doubt that the guardians throughout the country—and they elect the medical officers—are familiar with the diploma of the Apothecaries' Society, and it is to them more of a guarantee than other qualifications, of the value of which they are ignorant. The drawback to many a student is that, constrained by the Act of Parliament, the Society requires apprenticeship. This clause has however received a very liberal interpretation, and every pupil of a licentiate, who is certified to have served *after the manner* of an apprentice, is considered to have fulfilled the requirement. During this term he may also have carried on his hospital studies. Every one, therefore, who can show this certificate, intending to settle *in England* as a general practitioner—even if he take other diplomas, would probably consult his own interest, by becoming a Licentiate of the Apothecaries' Society, and as the fee is only five guineas, a very large number of young men will, we doubt not, secure this possible avenue to appointments. It may also be worth while to do this in order to be in a position to enable some future pupil to do likewise, since apprenticeship is only recognized—to a *Licentiate* of the Society.

SYLLABUS OF SUBJECTS FOR EXAMINATION, 1868.

English History.

The English Language.—Its Structure and Grammar. Proficiency in Composition will be judged of by the style of the answers generally.

Mathematics.—The Ordinary Rules of Arithmetic: Vulgar and Decimal Fractions. Addition, Subtraction, Multiplication, and Division of Algebraical Quantities. Simple Equations. The First Book of Euclid.

Natural Philosophy.—Explain the Composition and Resolution of Statical Forces. Describe the Mechanical Powers, and state the ratio of the Power to the Weight in each. Define the Centre of Gravity. Give the general Laws of Motion. State the Law of the Motion of Falling Bodies. Define Specific Gravity, and show how it may be ascertained. Describe and explain the Barometer, the Siphon, the Common Pump and Forcing Pump, and the Air Pump.

The Latin Language.—January Examination. Cæsar, De Bello Civili, Books I. and II. April Examination. Virgil, Æneid, Books V. and VI. September Examination. Cicero: Pro lege Manilia. Easy Grammatical Questions will be introduced into the Latin Paper, and each Candidate will be expected to give satisfactory answers to these.

VOLUNTARY EXAMINATION.

The Greek Language.—Xenophon, Anabasis, Books I. and II. Grammatical Questions.

Logic.—Whately's Elements of Logic, the Introduction, First Book, and Second Book to the end of Chapter III.

Note.—On October 1st, 1868, the regulations of the General Medical Council, and the Preliminary Examination at the Hall will be modified. See page 263.

Regulations and Bye-Laws of Licensing Bodies in Ireland.

UNIVERSITY OF DUBLIN.

PROFESSORS IN THE SCHOOL OF PHYSIC.

Physic.—Dr. W. Stokes, Regius Professor.
Anatomy and Chirurgery.—B. G. McDowel, M.D.
Surgery.—R. W. Smith, M.D.
Medicine.—J. Banks, M.D.
Midwifery.—[vacant.]
Chemistry.—J. Apjohn, M.D.
Botany.—Dr. Alexander Dickson.
Materia Medica.—Dr. A. Smith.
Institutes of Medicine.—Robert Law, M.D.
Medical Jurisprudence.—Dr. Travers.

The following Degrees and Licences in Medicine and Surgery are granted by the University of Dublin:—

1. Bachelor in Medicine. 2. Doctor in Medicine. 3. Master in Surgery. 4. Licentiate in Medicine. 5. Licentiate in Surgery.

Matriculation.

Every Student must be matriculated by the senior Lecturer, for which a fee of five shillings is payable; but he need not have his name on the College books, or attend any of the academical duties, unless he desire to obtain a Licence or Degree in Medicine or Surgery. No Student can be admitted for the Winter Courses after the 25th of November.

QUALIFICATIONS FOR DEGREES AND LICENCES.

Bachelor in Medicine.

Candidates must be Graduates in Arts, and may obtain the Degree at the same Commencements as the B.A., or at any subsequent one. The medical education of a Bachelor in Medicine is of four years' duration, and comprises the following Lectures:—

Winter Courses.—Anatomy and Physiology—Practical Anatomy with Dissections—Surgery—Chemistry—Practice of Medicine—Midwifery.

Summer Courses.—Botany—Materia Medica and Pharmacy—Institutes of Medicine—Medical Jurisprudence.

Hospital attendance on St. Patrick Dun's during nine months, with three consecutive Courses of Clinical Lectures. Also nine months' attendance on a recognized Hospital.

Any of the Courses may he attended at any recognized Medical School, and three of them at Edinburgh University, provided the Candidate have kept an Annus Medicus in the School of Physic.

The Schools recognized are:—1. The School of the Royal College of Surgeons in Ireland. 2. The Carmichæl School. 3. The School of Steevens' Hospital. 4. The Ledwich School. 5. The Cecilia-street School.

An Annus Medicus may be kept in three ways.—1. By attending two winter courses. 2. Or one winter and two summer courses. 3. By nine months' attendance on Sir Patrick Dun's Hospital and Clinical Lectures: together with one winter course or two summer courses of three months' duration.

The Fee for nine months' attendance at Sir Patrick Dun's Hospital is twelve Guineas.

The Fee for the *Liceat ad Examinandum* is £5.

The Fee for the Degree of M.B. is £10.

Doctor in Medicine.

A Doctor in Medicine must be M.B., of at least three years' standing, and requires no other qualification.

Total Fees for this Degree, £13.

Master in Surgery.

This Degree can only be obtained by Bachelors of Arts. The curriculum is the same as that for the Licentiate in Surgery as given below.

Candidates will also be required to perform Surgical operations on the dead subject.

Total amount of Fees for the Decree of Ch. M., £15.

Licentiate in Medicine.

Candidates for the Licence in Medicine and Surgery must be matriculated in Medicine, and must have completed four years in Medical studies, and must pass an Examination in Arts, unless they be Students in the Senior Freshman, or some higher class. The Medical Course necessary for a Licence in Medicine is the same as for the Degree of M.B. A fee of £5 is charged on taking the Licence. Licentiates in Surgery of the Royal College of Surgeons in Ireland, on passing the Art Examination, will be admitted to Examination for the Licence in Medicine. Such Candidates will be exempted from Examination in Anatomy and Surgery: and Candidates who have also the Licence in Midwifery of the said College will be exempted from examination in Midwifery. Fee for the *Liceat ad Examinandum*, £5. Fee for the Licence in Medicine, £5.

Licentiate in Surgery.

Candidates must have kept one full year in Arts, and will be required to perform surgical operations on the dead subject. The curriculum extends over four years, and is as follows:—Two courses each of Anatomy and Physiology, and Theory and

Practice of Surgery; three courses of Demonstrations and Dissections; and one course each of Practice of Medicine, Chemistry, Materia Medica, Midwifery, Laboratory Chemistry, Botany and Medical Jurisprudence. Also attendance for three Sessions, each of nine months, on a recognised Hospital. Of the courses of Lectures, which are of six months' duration, not more than three can be attended during any one Session. Any of the above-named courses may be attended at any of the Medical Schools of Dublin, provided the Candidate has kept an *Annus Medicus*. A fee of £5 is charged for the Licence, and £5 for the *Liceat*.

SESSIONAL EXAMINATIONS.

Candidates for Degrees and Licences will be subjected to two examinations, one of them preliminary, which will be held at the close of the second year, and the other, after the full curriculum has been completed. The subjects of the preliminary examination are the following: Descriptive Anatomy, Botany, and Materia Medica, Pharmacy, Chemistry, theoretical and practical, with Chemical Physics. The best answers at the preliminary examination will be elected to the scholarships, provided they are in the Senior Freshman, or some higher class, and have kept one *Annus Medicus*.

PRIVILEGES OF MEDICAL STUDENTS.

Medical or Surgical Students, being Junior or senior Sophisters, and in attendance on the full courses necessary for an *Annus Medicus* are exempted from the classics of the Junior Sophister year, and from one of the three optional courses (Mathematical Physics, Experimental Physics, or Classics) of the Senior Sophister year. To obtain this privilege the Student must be matriculated, and the Certificate of his attendance on Lectures be submitted to the Senior Lecturer.

FREE COURSES.

Students in Arts, having their names on the College books, will be permitted to attend one course free of expense, with each of the University professors. Should the Student who has had the privilege of free attendance desire to obtain an official testimonium, he must, on obtaining it, pay to the professor the usual fee.

MEDICAL SCHOLARSHIPS.

Two Medical Scholarships are given annually, value £20 per annum each, tenable for two years, the Examinations for which are held each year in June, in the following subjects:—Anatomy, Physiology, Chemistry, Materia Medica and Botany.

Medical School Exhibitions.

The Professors of the University School give three Exhibitions annually, two Senior, value £15 and £10, open to all Students who have been three years attending the School. The Subjects being—Practice of Medicine, Surgery, Pathology, and Forensic Medicine.

One Junior, value £15.—The time and subjects of Examination being the same as those for the Medical Scholarships.

Expense of obtaining the Degrees of Bachelor in Medicine and Master in Surgery in the University of Dublin:—

Lectures	£49	7	0
Hospitals	28	7	0
Degree Fees	32	0	0
	£109	14	0
Private Tuition, say,	20	0	0
	£129	14	0

N.B.—As no degrees in Medicine or Surgery are conferred except upon Graduates in Arts, the expense of the Degree of Bachelor in Arts, amounting altogether to £83 4s., should be added to the foregoing, making the total cost something over £200.

The Board of Trinity College have recently passed orders:—1. That three-fourths of the courses of lectures must be in all cases attended. 2. That the system of perpetual pupils be abolished. 3. That a daily roll be called by each Professor. 4 Students in Arts shall be entitled to attend one Course in Botany, and to receive a certificate free of charge. 5. Candidates for Degrees and Licences in Surgery shall be required to attend one course only on Anatomy, for which he shall charge Three Guineas. 6. The two courses delivered by the Professor of Surgery shall include practical instruction in Operative Surgery on the dead subject; and for each the Professor shall charge Four Guineas. 7. The Professor shall charge Three Guineas for the winter lectures in Chemistry. 8. Laboratory Instruction shall be substituted for the second course of Chemistry, hitherto delivered, for which the Professor of Chemistry shall charge Five Guineas. 9. Students in Arts may attend the Professors of Surgery and Chemistry, and to receive certificates on payment of half the fees. 10. That after Shrovetide, 1868, all Candidates in Medicine shall produce Certificates in Practical Midwifery, including at least six deliveries from either of the Rotunda Hospital, the Coombe Hospital, or Sir P. Dun's Maternity.

THE QUEEN'S UNIVERSITY IN IRELAND. FACULTY OF MEDICINE.

DEGREE OF DOCTOR OF MEDICINE.

EACH Candidate for the Degree is required—

1. To have passed in one of the Queen's College's the examination for Matriculation in Arts, and to have been Matriculated in Medicine. 2. To have attended in one of the Queen's Colleges, Lectures on one Continental Language for six months, and on Natural Philosophy for six months. 3. To have attended, in some one of the Queen's Colleges, the lectures on Experimental Physics, on one Modern Language, and two other courses. For the remainder of the courses, certificates will be received from the Lecturers in Schools, recognised by the Senate. 4. To pass two University Examinations—the First University Examination and the Degree Examination.

The curriculum of Medical study extends over four years, and is divided into two periods of two years each.

The first period comprises attendance on Chemistry, Natural History, Anatomy and Physiology, Practical Anatomy, Materia Medica, and Pharmacy. Practical Chemistry in a recognised Laboratory is also to be attended during the first period, and the Practice during six months of a Medico-Chirurgical Hospital, containing at least sixty beds, together with the Clinical Lectures delivered therein.

The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. During this period Students attended Practical Midwifery and eighteen months' practice of a Medico-Chirurgical Hospital, containing at least sixty beds, and in which Clinical Instruction is delivered.

At least two of the above Courses of Lectures must be attended in some one of the Queen's Colleges; the remainder may be taken at the option of the Candidate, in any University, College, or School recognised by the Senate of the Queen's University. Candidates are required, before graduating to have also attended in one of the Colleges of the University, Lectures on Experimental Physics, and on one Modern Language, and to have passed the Matriculation Examination. There are two University Examinations: one comprising the subjects of study in the first period, the other the subjects of the second period. The University Examinations are held twice in each year, in June and September.

The June Examinations are Pass Examinations, and commence on the Tuesday following the second Saturday in June.

The Honour Examinations commence on the last Tuesday in September, and are followed by Pass Examinations.

Each Candidate for Examination in June must forward to the Secretary, before the 1st of June, notice of his intention to offer himself, along with his certificates; and each Candidate for Examination in September or October must forward similar notice, along with his certificates, before the 1st of September.

THE FIRST UNIVERSITY EXAMINATION IN MEDICINE.

The First Examination may be passed either in June or September.

Students may present themselves for this Examination at the termination of the first period of the Curriculum, or at any subsequent period.

Before being examined, each Candidate must produce evidence of having completed the course recommended for study during the first period.

The First University Examination comprises the subjects recommended for study during the first period, along with which any Candidate may present himself for Examination in Experimental Physics and Modern Languages, if he has attended in one of the Queen's Colleges the courses on these subjects.

English Composition forms a part of all University Examinations.

HONOURS.

Competitors for Honours will be examined in all the subjects of the First Medical Examination, including Experimental Physics and Modern Languages.

Two Exhibitions, one consisting of two instalments of £20 each, the other of two instalments of £15 each, are awarded under certain conditions at this examination.

The Candidates who pass with Honours will be arranged in three classes.

Candidates who defer passing their First Medical Examination until they present themselves at the Degree are not eligible for Honours with the First Examination.

The Honour and Pass Examinations will be held in September. The Examination held in June is a Pass Examination.

DEGREE EXAMINATIONS IN MEDICINE.

Examinations for the M.D. will be held in June and September The Fee is £5.

Each Candidate must produce—

1. A Certificate from the Secretary of the Queen's University, that he has passed the previous Examination, unless he presents himself for both examinations simultaneously.

2. From the Council of his College that he has passed a full Examination for Matriculation in Arts, and has been admitted a Matriculated Student in the Faculty of Medicine.

3. That he has attended in the College lectures on one Modern Language, on Experimental Physics, and two other courses.

4. That he has completed all other prescribed courses.

The Degree Examination comprises the subjects recommended for study during the second period, along with Experimental Physics and one Modern Language, unless an Examination in these subjects have been already passed at the previous Medical Examination.

The Examination for the Degree of M.Ch. comprises in addition an examination in Operative Surgery.

Candidates who graduate with Honours will be arranged in three classes. Candidates who take a first Class will receive a Medal and Prize. Candidates who take a second Class will receive a Prize. Candidates who take a third class will receive a Certificate of Honour.

The Examination for the Degree with Honours will commence on the last Tuesday in September, and will be followed by the Examination of those Candidates who seek to graduate without Honours.

The Examination held in June is a Pass Examination.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The Royal College of Surgeons is the principal Surgical Licensing Corporation of Ireland, and confers the great majority of the surgical qualifications granted in that division of the United Kingdom. Although there is a medical school attached to it, the college receives and grants its diplomas on certificates from all medical schools of standing. The letters testimonial confers the title of licentiate with full qualification to practice; but the exercise of the privileges of attending and voting as a member of the college, is reserved for Fellows. The medical school of the college is under the superintendence of the council, by whom the professors are elected. Within the last year important modifications have been made in the system of examination, quarterly lessons of the court having been established, and voting by members instead of "Yes, and No" introduced. Full information as to these changes will be found in the appended regulations.

Court of Examiners.—Christopher Fleming, M. H. Stapleton, B. W. Richardson, Edward A. Stoker, George H. Porter, T. J. Tufnell, J. Barker, E. S. O'Grady.

Examiners in Midwifery.—E. J. Quinan, G. Cronyn, James Isdell.

Examiners in General Education.—T. Byrne, A. B., M. B., John Murray, A.M., LL.D., G. F. Shaw, LL.D., F.T.C.D.

REGISTRATION OF PUPILS.

Every person shall be registered as a Pupil, on the College books, if he shall have laid before the Council a receipt showing that he has lodged in the Bank of Ireland a fee of five guineas.

Registered Pupils can study in the Museum on two days in each week, and to read in the Library every day, from ten to one o'clock. They may also attend the Lectures on Comparative Anatomy, and obtain the certificate without payment. No student is admitted to the sessional or final examination for Letters Testimonial until he becomes a Registered Pupil.

CLASSICAL EXAMINATION.

Registered Pupils are admitted to the Classical Examination at any period previous to the final Examination for Letters Testimonial.

Students not Registered Pupils are also admitted to the Classical Examination upon payment of ten shillings; but they are not enrolled as Registered Pupils, or entitled to the privileges of such pupils, until they have paid the full registration fee of five guineas.

The following resolution was passed at a meeting of the Council held on Thursday, the 18th of August, 1865. viz.:—

"That from November 1, 1865, Candidates may select, as the subject of examination. any of the following Greek Works:—The Gospel of St. John, the Menippus of Lucian, or a book of Xenophon's Anabasis; also in Latin, First and Second Books of the Æneid of Virgil, the Jugurthine War of Sallust, or Third Book of Livy. Candidates will also be required to write English from Dictation, and to give evidence of proficiency in Arithmetic.

THE FELLOWSHIP.

Candidates must be twenty-five years of age, have studied six years, and have attended a course on Comparative Anatomy, on Botany, and Natural Philosophy. The fee is Thirty-five Guineas for a resident in Dublin, and Twenty-five for a non-resident.

LETTERS TESTIMONIAL.

Every Registered Pupil shall be admitted to an examination for Letters Testimonial if he shall have laid before the Council the following documents:—

a. A receipt showing that he has lodged twenty guineas in the Bank of Ireland.

b. A certificate that he has passed an examination as to his acquaintance with Greek and Latin.

c. Certificates showing that he has studied his profession for not less than four years.

d. Certificates of attendance on a recognized Hospital during three years.*

e. Certificates of attendance on the following lectures:—

Three Courses.—Anatomy and Physiology; Theory and Practice of Surgery; Dissections. with Demonstrations

Two Courses.—Chemistry (for one on general and one on practical Chemistry.)

One Course.—Midwifery; Medical Jurisprudence; Botany; Materia Medica; Practice of Medicine.

DIPLOMA IN MIDWIFERY.

Any Fellow or Licentiate shall be admitted to an examination for the Diploma in Midwifery upon laying before the Council the following documents:—

a. Certificates that he has attended one course of lectures on Midwifery and Diseases of Women and Children, delivered by a Professor or Lecturer in some recognised School.

b. That he has attended a recognised Lying-in Hospital for six months; or a recognised dispensary for lying-in-women and children, devoted to this branch of surgery alone.

c. That he has conducted thirty labour cases. Candidates for the Midwifery Diploma shall be examined on the organization of the female; the growth and peculiarities of the fœtus; the practice of Midwifery, and the diseases of women and children.

REGULATIONS AS TO EXAMINATIONS.

Letters Testimonial.

The examinations for Letters Testimonial shall be held from time to time, as the Council may direct. Five Examiners at least shall be present. Each candidate shall be examined upon Anatomy, Physiology. the Theory and Practice of Medicine and Surgery, Materia Medica and the form of prescription. and shall perform such surgical operations or dissections, or explain

* Attendance on Provincial Hospitals.—Candidates for Letters Testimonial, who shall have attended recognized Hospitals during three Winter Sessions of six months each, shall be considered to have performed sufficient Hospital Attendance, if they shall be able to produce Certificates of regular daily attendance during a like number of months at a County Infirmary, or Provincial Surgical Hospital, containing at least fifty beds, provided the Surgeons of such Infirmaries or Hospitals shall make returns to this College, in the months of May and November in each year of the number of Students so attending.

such anatomical and pathological preparations as the Examiners may require.

Candidates for Letters Testimonial, being Licentiates of a College of Physicians or Graduates in Medicine of a University, shall be examined in general and descriptive Anatomy, Physiology, the Theory and Practice of Surgery, and Operative Surgery. Candidates whose answering shall be found insufficient will not be allowed to present themselves a second time until after the expiration of six months. In addition to the oral examinations, candidates for Letters Testimonial shall, subsequent to the 1st of May 1863, be required to give written answers to written or printed questions, to be delivered to them in such a manner as the Council may direct.

ORDER OF QUARTERLY EXAMINATIONS.

1st. Candidates shall return their names to the Registrar, and lodge their fees and certificates one week before examination.

2nd. Candidates shall be examined in alphabetical order.

4th The Candidates shall assemble at three o'clock P.M., when twelve, selected according to alphabetical order, will each for the Junior Class receive three written questions on Anatomy and Physiology, and one on Materia Medica, and for the Senior four written questions on Surgery and Practice of Medicine, which they will be required to answer within one hour; at the end of the hour each Candidate shall enclose his questions and answers in an envelope, with his name on the back, and hand same to the Examiner superintending.

5th. The seven Examiners shall attend on each day at four o'clock, to commence the Oral Examinations, and four of them shall examine for a quarter of an hour, at four separate tables in the Junior Class—viz, three on Anatomy and Physiology, and one on Materia Medica, and in the Senior Class, three on Surgery and Practice of Medicine, and one on the Form of Prescription.

7th. Two Councillors shall be summoned to witness the examination of each Candidate, and shall accompany him from table to table till his examination be completed, when the voting papers having been examined, and the result declared, the name of each successful Candidate shall be enrolled in a book kept for that purpose in the College.

QUARTERLY EXAMINATIONS.

1st. Examinations shall be held quarterly, on the second Tuesday in February, May, August, and November, at which Candidates shall be divided into two classes—junior and senior.

2nd The Junior Class shall produce certificates of three courses of Lectures on Anatomy and Physiology, three courses on Practical Anatomy, with dissections; two courses on Chemistry, one course on Materia Medica, one course on Botany, and one course on Forensic Medicine.

3rd. This class shall be examined in Anatomy, Physiology, and Materia Medica.

4th. The fee for this examination shall be five guineas; not to be returned in case of rejection, but to be allowed in the fee for the second examination.

5th. The Senior Class shall produce certificates of three courses on the Theory and Practice of Surgery, one course on the Practice of Medicine, and one course on Midwifery; also of attendance on a recognised Hospital for three Winter and three Summer Sessions.

6th. This class shall be examined in Surgery, Operative Surgery, the Practice of Medicine, and form of prescription.

7th. Both these examinations shall be partly written and partly oral.

8th. The fee for this examination shall be fifteen guineas.

Fees to be paid by Candidates for Letters Testimonial.

1st. The candidate pays ten shillings for his preliminary examination.

2nd Five guineas as registered pupil of the College.

3rd. Five guineas for the Junior Class examination, which is not returned in case of rejection, but is allowed in the fee for his second examination.

4th. Fifteen guineas for the Senior Class examination—total, £26 15s.

5th. Every candidate rejected at the Quarterly Examinations shall be required to pay to the College the sum of two guineas on applying for re-examination, so as to recompense the College for the necessary expense.

FELLOWSHIP EXAMINATION.

Examinations for the Fellowship shall be held at stated periods, as the Council may direct. Five Examiners at least, together with the President, or Vice-President, and two Members of the Council, shall be present. Each candidate shall be examined on two days. The subjects of the first examination shall be Anatomy and Physiology (human and comparative); those of the second, Pathology, Therapeutics, the Theory and Practice of Medicine and Surgery. In addition to the oral examinations, candidates shall be required to give written answers to written questions. The candidates shall also perform dissections and operations on the dead body. Candidates whose answering shall be found insufficient will not be allowed to present themselves a second time until after the expiration of one year.

EXAMINATION IN MIDWIFERY.—The examination shall be conducted by the Examiners in Midwifery. Such examinations shall be held, from time to time, as the Council may direct. Should a candidate be rejected, he shall not again be admitted to an examination until a period of three months shall have elapsed; and he then shall be obliged to produce evidence of his having been engaged in the study of this branch of Surgery subsequent to such rejection.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

President: WILLIAM STOKES.

CENSORS:

WILLIAM MOORE, V.P. and Examiner in Medicine, and in Botany.
W. B. JENNINGS, Examiner in Midwifery and in Anatomy.
T. W. BELCHER, Examiner in Materia Medica and Medical Jurisprudence, and in Chemistry.
S. GORDON, Examiner in Medicine and in Physiology.

EXAMINERS IN MIDWIFERY:

JOHN RINGLAND and GEORGE JOHNSTON.

Registrar: LOMBE ATTHILL.

REGULATIONS RESPECTING THE LICENTIATESHIP IN MEDICINE.

Candidates for the Licentiateship must make application for permission to be examined according to the form supplied by the Registrar.

Candidates must deposit a certificate of having lodged the admission fee in the Bank of Ireland.

Candidates must give proof of having attained the age of twenty-one, of four years' study of Medicine at a recognized School or Schools; and of having studied the following subjects—viz., Anatomy, Physiology, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica and Botany, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, Midwifery.

Of having attended a Medico-Chirurgical Hospital, with Clinical Lectures, together with Clinical Instruction, for twenty-seven months (or such hospital for eighteen months with nine months at a Medical Hospital), the attendance being for not more than nine months in any year, and both hospitals not being taken out in the same year.

Of six months' Practical Midwifery at a recognized lying-in hospital, or other evidence of having attended Practical Midwifery.

Candidates not personally known to a Fellow of the College must transmit Testimonials of character from registered Physicians and Surgeons. Those of public hospitals or infirmaries are preferred.

SESSIONAL EXAMINATIONS.

Students are recommended to divide their study into two Periods, of two years each; the first, Anatomy and Physiology, Surgery, Chemistry, Botany and Hospital Attendance.

The second to comprise Practice of Medicine, Materia Medica, Medical Jurisprudence, Midwifery, and Hospital Attendance.

The Examination is divided into two parts:—

First Part.—Anatomy, Physiology, Botany and Chemistry.

Second Part.—Materia Medica, Practice of Medicine, Medical Jurisprudence, and Midwifery.

Students may be examined in the first part at the termination of the first period of study; or in all the subjects on the completion of their studies.

Candidates must have passed a Preliminary Examination in Arts previous to or within the first two years of their studies; or must have passed an Examination in General Education by some of the qualifying or National Educational Bodies.

Students in Arts of one year's standing, of a University;

Graduates or Licentiates in Medicine or Surgery of any University or College will be exempted from such Examination.

These regulations will not apply to Candidates who have commenced previously to January, 1861.

Candidates qualified as follows are required to undergo the second part of the professional Examination only—viz, 1. Graduates in Medicine of a University. 2. Fellows Members, or Licentiates, of the Colleges of Physicians of London or Edinburgh, admitted upon Examination. 3. Graduates or Licentiates in Surgery.

If the President and Fellows be not satisfied with the answering of a Candidate, they may admit him to re-examination, after a lapse of two months.

The Examinations are open to all Fellows and Licentiates of the College. Every Candidate before being admitted as a Licentiate, must subscribe a declaration that he authorises the cancelling of his diploma should he at any time dispense medicine for sale.

If the applicant be an Apothecary, he must surrender his Certificate as such; and, if admitted, must not be Registered as an Apothecary.

The form of the Diploma declares that the President and Fellows "Do by these presents grant him a Licence to practice in the Faculty of Physic, and do hereby certify that he is a Physician and Licentiate in Medicine of said College."

REGULATIONS RESPECTING THE LICENCE IN MIDWIFERY.

Members of the College desiring to obtain the Licence in Midwifery must undergo a special Examination, and, if approved, shall be distinguished as Practitioners in Midwifery in the Lists of the College

Candidates for the Licence in Midwifery, not being Licentiates, will be admitted to Examination on the following qualifications:—The Degree or Licence in Medicine or Surgery from any University or College, together with a Certificate of six months' Lectures on Midwifery, with six months at a recognized Lying-in Hospital, or of having attended Practical Midwifery for six months at a recognized Lying-in Hospital, or other evidence of having attended Practical Midwifery.

FEES FOR LICENCE AND EXAMINATIONS.

The Fee for the Licence is £15 15s.; which may be divided as follows:—

For Examination at the termination of the first period of Study, £5 5s.

For final Examination for the Licence, £10 10s.

Fee for the Midwifery Diploma, £3 3s.

The following Regulations relative to the Licence in Midwifery were adopted by the College on the 10th of March 1865; Fee for the Licence in Medicine and Midwifery, if taken out at the same time, £16.

The Admission Fee, with the exception of £2 2s., is returned to any rejected Candidate; and the Admission Fee, with the exception of £1 1s., is returned to any rejected Candidate for the Licence in Midwifery; but in the case of a rejected Candidate afterwards passing within twelve months, the sum previously deducted is allowed in the fee paid for such second Examination.

Beside the ordinary separate examination for each candidate, Quarterly Class Examinations are now held at the King and Queen's College of Physicians, Dublin, according to the regulations given below. In every case the examinations of this College are open to that portion of the public who are best qualified to judge, the Licentiates, and due notice is given according to a printed form, which is put up in the reading-room two days before each separate examination, and by advertisement in the medical and daily papers, as regards the Quarterly Class Examinations. The examinations are eminently fair and practical, due regard being had to the *bonâ fide* knowledge of the candidate; and to the interests of the public who may be confided to his professional care. This College has recently discontinued preliminary examinations in Arts, leaving that duty to be performed by the Universities, and by other public bodies, having the care of general, rather than professional education. The following are the regulations for the Quarterly Class Examinations in Medicine and in Midwifery:—

The examinations are partly written and partly *vivâ voce*. The written examination, which takes place in the forenoon, consists of five printed questions from each examiner.

The *vivâ voce* examination, which takes place in the afternoon, is conducted by each examiner in turn, examining the candidates in class, in presence of his fellow examiners. The judgments are given in numbers; and the examiners meet to discuss the merits of all the candidates, whose cases are considered separately. The President, when present, examines in any subject which he may select; and has a casting vote.

THE APOTHECARIES' HALL OF IRELAND.

REGULATIONS REGARDING THE LICENCE.

EVERY Candidate is required to undergo a Preliminary and a Professional Examination.

THE PRELIMINARY EDUCATION AND EXAMINATION

Include—1. English; 2. Mathematics; 3. French; 4. Latin; 5. Greek; 6. Natural Philosophy; 7. Natural History.

A Preliminary Examination will be held at the Hall four times in the year—viz., on the third Friday in the months of January, April, July, and October, at two o'clock p.m. This Examination will be conducted by Graduates in Arts of the University of Dublin, with assessors from the court of the Hall.

Unsuccessful Candidates will not be re-admitted to Examination until after six months.

Certificates in Arts granted by any of the Bodies named in the Medical Act, or by any Educational Institution approved of by the Medical Council, will be recognized.

THE PROFESSIONAL EDUCATION.

Every Candidate for the Licence to Practice must produce Certificates—1. Of having passed an Examination in Arts previous to professional study. 2. Of being Registered as a Student in Medicine by one of the Bodies named in Medical Act. 3. Of being twenty-one years of age, and of good moral character. 4. Of Apprenticeship to a qualified Apothecary, or of having been engaged at Practical Pharmacy with an Apothecary for three years subsequent to having passed the Examination in Arts. 5. Of having spent four years in Professional study. 6. Of having attended the following Courses—viz., Chemistry, one winter session; Anatomy and Physiology, two winter sessions; Demonstrations and Dissections, two winter sessions; Botany and Natural History, one summer session; Materia Medica and Therapeutics, one summer session; Practical Chemistry, three months; Principles and Practice of Medicine, one winter session; Midwifery and Diseases of Women and Children, six months; Practical Midwifery at a recognised hospital (attendance upon twenty cases); Surgery, one winter session; Medical Jurisprudence, one summer session; Instruction in the practice of Vaccination. 7. Of having attended at a recognized hospital the Practice of Medicine and Clinical Lectures during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures, one winter and one summer session.

CERTIFICATE OF ASSISTANT.

Candidates for the Certificate of Assistant to an Apothecary must have completed at least three years of his Apprenticeship or have a certificate from an Apothecary of having been engaged at Practical Pharmacy for three years, together with a Certificate of good moral character.

The Examination of the intended Assistant will be restricted to the British Pharmacopœia and to Pharmacy, scientific and practical, including the history and character of Medicines, their preparations, combination, and doses, and the translation of Latin Prescriptions.

THE PROFESSIONAL EXAMINATION

Will be held upon the *first two* Fridays in each month, with the exception of the month of August, and will commence at Twelve o'clock Noon, by means of printed or written Questions, to which written Answers will be required. Each Candidate must have his paper completed (with his name affixed thereto) by the hour of Two o'clock, p.m., when the Candidates will be examined *orally*.

Candidates who fail to pass the First Part of the Professional Examination will be remitted to their Studies for *three months*.

Numerical values will be assigned to the Answers, both written and oral, in the several Examinations, and only Candidates who possess a certain proficiency of Medical knowledge in *all* the subjects will obtain "*The Licence to Practice.*"

Unsuccessful Candidates at the Pass Examination will not be re-admitted until after the expiration of *six months*.

Doctors of Medicine of any of the Universities in the United

Kingdom, or Surgeons of any of the Royal Colleges of Surgeons whose qualifications as such appear in the Medical Registrar, and who, having first passed an Examination in Arts, have also served an Apprenticeship, or the required term at *practical* Pharmacy, to a qualified Apothecary, may obtain the Licence of the Hall by undergoing an Examination—the former in Pharmacy, and the latter in Medicine and Pharmacy; in either case the Candidate will be subjected only to *one* day's Examination.

Candidates for the *Licence* must lodge their Testimonials, and enrol their names and address with the Clerk at the Hall, in Dublin, a week prior to the day of Examination.

Regulations and Bye-Laws of Licensing Bodies in Scotland.

UNIVERSITY OF EDINBURGH.

THIS is a teaching as well as a qualifying body, and the other faculties are as complete as that of medicine. The University confers the degree of M.D., and M.B., as well as that of C.M., and so affords its graduates the opportunity of obtaining, at the same time, a Surgical in addition to the medical diploma. The C.M. is not conferred on any one who does not take at the same time the M.B. For the degrees of M.B. and C.M., four years of professional study must be completed after passing a preliminary examination recognized by the Medical Council. A degree in arts in any British University exempts from the preliminary examination. Of these four years, one must be passed in the University of Edinburgh, and one other either in this or some other University entitled to confer the degree of M.D.

The University recognizes the courses of lectures of extra-academical teachers in Edinburgh subject to certain regulations.

The following regulations respecting the examinations for the degrees of M.B., and C.M., are now in force :—

I Every candidate must deliver, before the 31st March :—

1. A declaration, in his own handwriting, that he has completed his twenty-first year, and that he will not be, on the day of graduation under apprenticeship. 2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with certificates.

2. Each candidate is examined, both in writing and *viva voce*, —1st, on Chemistry, Botany, and Natural History; 2ndly, on Anatomy, Institutes of Medicine, Materia Medica, Pathology, Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence.

3. Students are admitted to an examination on the first division of these subjects at the end of their second year.

4. Students who have passed their examination on the first division may be admitted to examination on the second division at the end of their third year.

5. The examination on the third division cannot take place until the candidate has completed his fourth *annus medicus*.

6. Candidates may be admitted to examination on the first two of these divisions at the end of their third year, or to the three examinations at the end of their fourth year.

7. A candidate found unqualified cannot be again admitted to examination unless he has studied during another year two of the prescribed subjects.

8. After the candidate has satisfied the examiners, he will be summoned, on the 31st day of July, to defend his thesis; and finally, if the Senate think fit, he will be admitted on the 1st of August.

DEGREE OF M.D.

9. The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to the degree of Bachelor of Medicine, for two years at an hospital, or in the Military or Naval Medical Service, or in medical and surgical practice: the Doctor of Medicine must be a graduate in Arts of a University, and shall have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, Higher Mathematics, and Natural Philosophy.

10. Persons who began medical studies before 1861, are entitled to graduate under the system in force before or after that date.

N.B.—No candidate can appear for his final examination for M.B., or for M.D., who has not deposited his thesis with the Dean on the 31st of March. This statute will be rigidly enforced.

CANDIDATES FOR GRADUATION WHO COMMENCED BEFORE 1861.

Candidates who commenced studies by attendance on classes before 1861, are entitled to appear for examination for the degree of Doctor of Medicine, after four years' study, on completing their twenty-first year, and without having taken the degree of Bachelor of Medicine. They are also exempted from the Preliminary Examinations, and only require to undergo an examination on Latin. They are also exempted from attendance on Practical Chemistry and Practical Midwifery, and require only three months of Clinical Surgery, and eighteen months of hospital attendance.

Total Fee for M.B. Diploma, ...	£15 15 0
Additional Fee for C.M. Diploma, . . .	5 5 0
Additional Fee for M.D. Diploma, . . .	5 5 0
Government Stamp-duty for M.D. only, . .	10 0 0

Note.—Total Fees and Stamp for graduating as M.D. only, by Regulations for Students commencing before February, 1861, £25.

UNIVERSITY OF ST. ANDREWS.

THIS University confers the Degree of Master in Surgery (C.M.), as well as the Degrees of Bachelor and Doctor of Medicine. For many years the University did not require residence, and large numbers of medical men resorted to it in order to obtain the Doctorship by examination only. In this the University closely assimilated itself to the University of London, which is exclusively an examining body. The large number of practitioners who obtained the Degree after an examination extending over three or four days, attests the wisdom of a policy which was almost reversed by the University Commissioners. Only ten persons per annum can now obtain the St. Andrews Degree without residence. There are not a few of the old graduates who look upon this policy as retrograde and illiberal. The University of London maintains its position without requiring academical residence, and no one can doubt that the University of St. Andrews might have pursued the same course with great success, and by so doing conferred a benefit on the profession. Those who have not now fulfilled their course in a University, must either go to the University of London or forego a degree. The London University compels matriculation before commencing Hospital study. Only a relaxation of this rule can secure to all who desire it the opportunity of being examined for a degree. The following are the regulations actually in force :—

1. No one shall be admitted to the Bachelor of Medicine or Master in Surgery who has not been engaged in medical and surgical study for four years—the *annus medicus*, being constituted by two courses of one hundred lectures each, or by one such course, and two courses of fifty lectures each; but, in the case of the clinical courses, it shall be sufficient that the lectures be given at least twice a week.

2. Candidates for the Bachelor of Medicine and Master in Surgery must produce certificates similar to those required by the University of Edinburgh.

3. No one shall be received as a Bachelor of Medicine or Master in Surgery unless two of his four years shall have been in one of the following. viz.,—the University of St. Andrews, of Glasgow, of Aberdeen, of Edinburgh, of Oxford, of Cambridge, Trinity College, Dublin; Queen's College, Belfast; Cork, and Galway.

4. Every candidate for M.B. and C.M. shall lodge with the Senatus—A declaration, in his own hand-writing, that he has completed his twenty-first year. and is not under articles of apprenticeship. A state of his studies, in literature, philosophy and medicine, with certificates. A dissertation, composed by himself, and shall be examined, both in writing and orally—first, on Chemistry, Botany, Elementary, Anatomy, and Materia Medica; secondly, on advanced Anatomy, Zoology,

with Comparative Anatomy, Physiology, and Surgery; and thirdly, on Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

5. Students who offer themselves for examination on the first division of these subjects, at the end of their second year may be admitted.

6. Students who have passed on the first division may be admitted to examination on the second division at the end of their third year.

7. The examination of the third division shall not take place until the fourth year.

8. Candidates may be admitted to examination on the first two of these divisions at the end of their third year; or to the three at the end of their fourth year.

9. Rejected candidates shall not be admitted unless they shall have completed another year of study, or such portion of another year as may be prescribed by the Examiners.

10. Masters in Surgery must at the same time obtain the degree of Bachelor of Medicine.

12. There shall be paid for the degree of Bachelor five guineas for each of the three divisions, each such fee being payable when the candidate is examined in that division, and if the candidate desires to be admitted to the degree of Bachelor only, he shall not be required to pay any further fee to the fifteen guineas; but if he desires the degree of Master in Surgery he shall pay a further fee of five guineas; and every candidate for the degree of Doctor, being a Bachelor of Medicine, shall pay, in addition to the fees paid by him for the degree of Bachelor of Medicine, a fee of five guineas, exclusive of stamp duties.

UNIVERSITY OF ABERDEEN.

This is a large teaching body, as well as one entitled to confer degrees in all the faculties. The curriculum required for medical degrees is the same as that of the University of Edinburgh. Thus, four years of professional study, after passing a preliminary examination, is essential. One year must be passed at Aberdeen. The regulation admitting medical practitioners to examination for degrees without residence has now been rescinded. Candidates who commenced their medical studies before 1861, may be admitted to examination after four years' study, provided one year has been at Aberdeen. Hospital Practice is attended at the Aberdeen Royal Infirmary. The lectures qualifying for this and other examining bodies are delivered by the Professors in the University.

Winter Session.

Anatomy, Demonstrations, &c.—Dr. Struthers, 11 to 2 o'clock.
Chemistry.—Mr. Brazier, at 3.
Materia Medica.—In Summer.
Physiology (Inst. of Medicine)—Dr. Ogilvie, at 4.
Medicine.—Dr. Macrobin, at 3.
Surgery.—Dr. Pirrie, at 10.
Midwifery, &c.—Dr. Dyce, at 4.
Medical Jurisprudence.—Dr. Ogston, at 9.
Natural History.—Mr. Nicol, at 2.
Natural Philosophy.—Mr. Thompson, at 9.

Summer Session.

Prac. Anat. and Demonstrations.—Dr. Struthers, 9 to 4.
Botany.—Dr. Dickie, at 9 A.M.
Histology.—Dr. Struthers, at 2 P.M.
Comparative Anatomy.—Mr. Nichol, at 11.
Practical Chemistry.—Mr. Brazier, 10 A.M.
Materia Medica, &c.—Dr. Harvey, at 3.

HOSPITAL PRACTICE.—ABERDEEN ROYAL INFIRMARY.

Physicians.—Drs. Harvey, J. F. Smith, A. Reith, daily at 12.
Surgeons—Drs. Keith, Pirrie, Kerr, Fiddes, Dr. Wolfe (*ophth.*). Mr. Williamson (*dental*), daily at 12.
Clinical Medicine—Drs. Harvey and J. F. Smith, at 1.
Clinical Surgery.—Drs. Keith and Pirrie, at 1.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

THE FELLOWSHIP

Is conferred only on persons who have obtained a diploma from this or one of the Colleges of Surgeons of England or Ireland, or the Faculty of Physicians and Surgeons of Glasgow, and who are 25 years of age. At the election, three-fourths of the votes are required to be in the candidate's favour, and he has to promise to maintain the privileges of the College and obey its laws. Fellows are forbidden to keep open shops, to be connected with secret remedies, or to suffer their names to be used in indelicate advertisements or publications.

THE LICENCE.

The regulations are the same as those for the Joint Examination, given below, by the Colleges of Physicians and Surgeons, with the following exceptions: Botany is not required. A second course of Medicine is not required.

The first Professional Examination embraces Anatomy, Physiology, and Chemistry. The second Surgery and Surgical Anatomy, also Medicine, Midwifery, Materia Medica, and Medical Jurisprudence.

Registered medical practitioners, whose degree or licence in Medicine dates prior to October 1st, 1861, are exempt from the first Professional Examination.

Fee for the diploma £10.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

This is exclusively a licensing body, its diploma conferring a medical qualification. Arrangements have been made for joint examinations with the Royal College of Surgeons of Edinburgh, and with the Faculty of Physicians and Surgeons of Glasgow. This enables Students who have fulfilled the prescribed curricula to obtain a Medical and Surgical qualification combined.

THE FELLOWSHIP.

This is conferred only by election, and no one can be ballotted for until he has been a member for one year.

THE MEMBERSHIP

Is conferred on licentiates of a college of physicians, or graduates of a University, who are 24 years of age and satisfy the College of their knowledge of medical and general science.

THE LICENCE.

The regulations are the same as those for the joint examination by the Colleges of Physicians and Surgeons, with the following exceptions:—Anatomy, Practical Anatomy, and Surgery six months; Clinical Surgery, three months.

Candidates for the Licence of the College who already possess a qualification from a recognized licensing body, or who have passesd the first Professional Examination before a qualifying body, will not be required to be re-examined in Anatomy, Physiology, and Chemistry, but will have to undergo examination only in Practice of Medicine and Pathology, Materia Medica, Midwifery, and Medical Jurisprudence.

The following are the fees payable in all cases in advance:—

By a Licentiate, Ten Guineas. By a member, Thirty Guineas.

When a Licentiate shall be raised to the rank of member, Twenty Guineas.

When a member shall be raised to the rank of Fellow, Thirty Guineas, exclusive of stamp-duty.

THE SCOTCH DOUBLE QUALIFICATIONS.

As already stated the Royal College of Physicians of Edinburgh have made arrangements with the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, by which, after one series of examinations, the successful candidate receives two diplomas, and is thus able to register a medical and a surgical qualification under the Medical Act, thus:—

Lic. Roy. Coll. of Phys. Ed., and Lic. R. C. S. Ed., or Lic. R. Col. Phy. Ed., and L. Fac. Phys. and Surg. Glas., as the case may be.

The principle on which the joint examinations are conducted is a simple compromise by which the College of Physicians takes exclusive charge of the examination in medicine; the College of Surgeons or the Glasgow Faculty, as the case may be, of the examination in surgery; while the examination in subjects common to both medicine and surgery is conducted by a board, in which each of the bodies is represented.

It is proper to state that such arrangements as those were contemplated by the Medical Act and authorised by Section XIX, while these under consideration were sanctioned by the Medical Council on the 7th August, 1859.

Candidates for the double qualification having fulfilled the prescribed curriculum are subjected to two professional examinations. The preliminary examination for future students must be passed before commencing professional study, and in other respects be in accordance with the recommendations of the Medical Council.

The following courses of lectures must be attended:—Anatomy, two courses, six months each; Practical Anatomy, twelve months; Chemistry, six months; Practical or Analytical Chemistry, three months; Materia Medica, three months; Physiology, fifty lectures; Practice of Medicine, six months; Clinical Medicine, six months; (in addition to the above courses of Practice of Medicine and Clinical Medicine, one course of either, at the option of the student); Principles and Practice of Surgery, six months; Clinical Surgery, six months (in addition to the above courses of Surgery and Clinical Surgery, one course of either at the option of the student); Midwifery and Diseases of Women and Children, three months; Medical Jurisprudence, three months; Pathological Anatomy, three months (or attendance on post-mortem examinations at a hospital). Candidates must have attended six cases of labour, either in a maternity hospital, or a dispensary where midwifery cases are admitted, or in private practice, and must produce a certificate to that effect. Also three months practical pharmacy under an apothecary or a member of the Pharmaceutical Society, or a chemist and druggist recognised by either college, or in a hospital or dispensary, or as assistant to a registered practitioner.

The candidate must have also attended, for twenty-four months, a public general hospital, and for six months a public dispensary, recognised by the college; or for six months as visiting assistant to a registered practitioner.

A certificate in vaccination, signed by a registered practitioner, will be required.

Candidates for the first professional examination must apply on or before the Saturday preceding the examination, and produce certificates of all those courses of study which have reference to the subjects of that examination, and also a certificate of having passed the preliminary examination. Fee £6.

In case of a candidate being unsuccessful, £4 will be returned to him, the remaining £2 being retained.

SECOND EXAMINATION.

Candidates who have passed the first professional examination of any licensing board will be admissible to the second examination on producing certificates of the whole course of study, and paying the fee of £16. In conducting the examination, *none* of the subjects will be omitted. Unsuccessful candidates will receive back £14.

The second examination shall embrace Medicine, Surgery, and Surgical Anatomy. Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and shall not take place before the termination of the last year of study. These examinations will take place immediately after the conclusion of the first professional examinations.

Every candidate must produce—1st. Evidence of his having attained the age of twenty-one; 2nd. The tickets and certificates of his classes; 3rd. The certificate of the first professional examination; and 4th. A tabular statement (for which a printed form will be furnished by the Inspector) exhibiting the full amount of his education. The tabular statement must be attested by his signature, and will be preserved as a record.

Unsuccessful candidates at either examination shall be remitted to their studies for a period, not in any case less than three months. Fee £10. In case of a candidate being unsuccessful; £8 will be returned.

Dissections and Anatomical Specimens, articles of the Materia Medica, Chemical Tests, the Microscope, Surgical Apparatus, and Pathological Specimens, will be employed during the examinations; and every candidate will be required to write prescriptions. The examination may also consist, in part, of the actual examination of persons labouring under disease.

Candidates who have been rejected by any examining board may not be admitted within three months.

The Inspector and Treasurer of the Double Qualifications is Dr. Gairdner, of 45 Northumberland-street, Edinburgh, to whom all communications should be addressed, and who will furnish any further information.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The Faculty embraces in its Fellowship both Physicians and Surgeons, and candidates may apply in either capacity according to their qualifications. The proposal of a candidate requires to be made at an ordinary meeting by two Fellows, and it must state the medical or surgical qualifications, as the case may be, on which he desires admission. The fee to be paid by a Fellow is £50. In case of a non-resident, in consideration of his inability to participate in all the privileges of the Fellowship, the fee is £25, subject to the condition that the full fee shall be payable should he at any subsequent time come to reside within five miles of the Faculty Hall.

ABSTRACT OF REGULATIONS FOR THE LICENCE.

Course of Study.—1. Anatomy, two courses, six months each. 2. Practical Anatomy, twelve months. 3. Chemistry, one course, six months. 4. Practical or Analytical Chemistry, one course, three months. 5. Physiology, not less than fifty lectures. 6. Practice of Medicine, one course, six months. 7. Clinical Medicine, one course, six months. 8. Principles and Practice of Surgery, one course, six months. 9. Clinical Surgery, one course, six months. 10. In addition to the above courses of Surgery and Clinical Surgery, one six months' course of either of these, at the option of the candidate. 11. Materia Medica, one course, three months. 12. Midwifery, &c., one course, three months. 13. Medical Jurisprudence, one course, three months. 14. Practical Midwifery, attendance on at least six cases of labour. 15. Pathological Anatomy, three months' instructions in the *post-mortem* room of a recognised hospital. 16. Hospital Practice, twenty-four months' attendance on the practice of a public general hospital, containing on the average at least eighty patients.

A certificate of proficiency in Vaccination, signed by a registered practitioner, will be required of every candidate.

Candidates commencing professional study prior to 1st Oct., 1865, are admitted to the final examination after four sessions, or three winter and two summer sessions' attendance at a regular medical school.

Candidates commencing professional study on, or subsequent to the above date, must have been engaged in professional study during four years, which shall embrace four winter sessions or three winter and two summer sessions at a medical school.

Candidates are subjected to two professional examinations; the first embraces Anatomy, Physiology and Chemistry, and cannot be undergone before the end of the second winter session of study.

The second embraces all the other subjects of the curriculum, and cannot be undergone before the termination of the full period of study.

Intending candidates for the second examination must produce evidence.—1. Of being 21 years of age.—2. Of having passed the first examination.—3. Class and hospital certificates. They will also write out a tabular statement of their whole course of study, for which the secretary, on application, will supply candidates with printed forms.

The fee for the diploma is £10; £4 payable at the first, and £6 at the second examination.

First examinations will be held on the second Tuesday of each month. Second examinations will take place immediately on the termination of the first examinations.

Candidates for the licence must have passed a recognized preliminary examination, and those who commenced study on or after 1st October, 1865, must have their names enrolled in the Students' Register. The preliminary examination of the faculty embraces.—1. English. 2. Latin. 3. Arithmetic, and 4. and 5 any two of the following, at the option of the candidate: Algebra, Geometry, National Philosophy, Greek, French, German, Botany, Zoology.

The faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh conjointly, grant their diplomas after one series of examination.—See Scotch Double Qualifications above.

The fee for the two diplomas granted conjointly is £16—£6 for first, and £10 for the second examination.

The days of examination may be learned on application to the secretary of the Faculty.—See advertisement.

UNIVERSITY OF GLASGOW.

This is a large teaching as well as examining body. The same degrees are conferred as in the Universities of Edinburgh and St. Andrews. The course of study regulations to be observed by candidates are the same as those of the University of Edinburgh, the Dean's compulsory residence at the University of Glasgow being required, instead of at Edinburgh. The term for conferring degrees is on the third Thursday in May. Fees for degrees :—M.B., £15 15s. (being £5 5s. at each of the three examinations); C.M., £5 5s. (in addition to the fees for M.B.); M.D., £5 5s. (in addition to the fees for M.B.); and £10 3s. for Government stamp. The lectures qualifying for the degrees are delivered by the Professors in the University, and the hospital practice is attended at the Glasgow Royal Infirmary.

Winter Session.

Anatomy—Demonstrations, &c.—Dr. A. Thompson, 11 o'clock.
Chemistry.—Dr. T. Anderson, at 10 o'clock.
Materia Medica.—Dr. Cowan, at 11 o'clock.
Institution of Medicine.—Dr. Buchanan, at 4 o'clock.
Medicine.—Dr. Gairdner, at 11 o'clock.
Surgery.—Mr. Lister, at 1 o'clock.
Midwifery, &c.—Dr. Pagan, at 3 o'clock.
Medical Jurisprudence —Dr. Rainy, at 5 o'clock.
Lectures on the Eye.—Dr. Mackenzie (in summer).

Summer Session.

Practical Anatomy and Demonstrations.—Dr. Thomson at 11.
Botany.—Dr. W. Arnott, from 2 to half-past 6 o'clock.
Practical Chemistry.—Dr. Anderson, 10 to half-past 9.
Natural History.—Dr. Young, at 12 o'clock.

HOSPITAL PRACTICE—GLASGOW ROYAL INFIRMARY.

Physicians.—Drs. Orr, Gairdner, Leishman, Steven, and Perry, at half-past 8 o'clock.
Surgeons.—Dr. Lyon, Dr. Morton, Dr. G. Buchanan, Mr. Lister, at half-past 8 o'clock.
Assistant-Surgeons.—Dr. Dewar and Dr. G. H. B. M'Leod.

ANDERSON'S UNIVERSITY, GLASGOW.

This is exclusively a teaching body. It offers excellent opportunities for acquiring a complete medical education, and the expenses are very much below those of any other institution. The fame of Glasgow as a place for Clinical instruction has long been known, and this school affords the means of dissection, and the pursuit of other practical knowledge throughout the year. Hospital practice at the Glasgow Royal Infirmary. Every information will be given on application to Dr. George Buchanan, 193, Bath-street, Glasgow, both as to the University, the Hospital, and Diplomas.

Winter Session.

Anatomy.—Dr. George Buchanan, at 5 o'clock.
Practical Anatomy.—Dr. George Buchanan, at 1 o'clock.
Physiology.—Dr. E. Watson, at 12 o'clock.
Surgery.—Dr. G. H. B. Macleod, at 11 o'clock.
Chemistry.—Dr. Penny, at 10 o'clock.
Practice of Medicine.—Dr. M'Call Anderson, at 4 o'clock.
Dissection.—Dr. George Buchanan, daily.
Materia Medica.—Dr. Morton, at 3 o'clock.

Summer Session.

Surgical Anatomy.—Dr. George Buchanan, at 12 o'clock.
Operative Surgery.—Dr. G. H. B. Macleod, at 5 o'clock.
Midwifery.—Dr. J. G. Wilson, at 3 o'clock.
Practical Chemistry.—Dr. Penny, at 1 o'clock.
Botany.—Mr. Hennedy, at 10 o'clock.
Medical Jurisprudence.—Dr. Leishman, at 4 o'clock.

Glasgow Royal Infirmary.—See above.

Glasgow Eye Infirmary.

This Hospital contains 24 beds for in-patients, of whom 200 were treated during last year; 3000 out-patients were prescribed for at the dispensary; 197 operations were performed.
Consulting Surgeons.—Dr. H. Rainy and Dr. A. Anderson.
Surgeons.—Dr. Mackenzie, Dr. Anderson and Dr. W. Brown.
Assistant Surgeon.—Dr. George Rainy.
Junior Assistant Surgeon.—Dr. Thomas Reid.

Glasgow Lying-in Hospital and Dispensary.

This hospital contains 24 beds for in-patients. The average number of women delivered yearly is 800.
Consulting Surgeon.—Dr. George Buchanan.
Consulting Physician.—Dr. A. Anderson.
Visiting Physicians.—Dr. Tannahill and Dr. J. G. Wilson.
Physicians to Out-Patients.—Dr. Yeaman and Dr. Dewar.

Dispensary for Skin Diseases, 68, John-street.

Physician.—Dr. M'Call Anderson.
Number of patients annually, about 1200.
Practical Courses are held during the months of May, June, and July.

London Hospitals and Schools.

ST. BARTHOLOMEW'S HOSPITAL.

The great city hospital has always attracted large numbers of students from all parts of the country, so that the school is very flourishing. The lamented death of Dr. Jeaffreson, and the resignation of Mr. Wormald have made two changes in the staff duly noticed in our columns during the year. Dr. Church is the new Assistant-Physician, and Mr. Langton the new Assistant-Surgeon. Special departments have been partially organized during the last year, but these are not numerous, and the posts have been assigned to those already on the staff.

H. R. H. the Prince of Wales has become the President of the hospital, which receives within its walls upwards of 6000 in-patients annually, and its out-patients and casualties amount to more than 100,000 annually. It contains 650 beds, of which 403 are allotted to surgical, including ophthalmic, orthopædic, aural, and spyhilitic cases, and 247 to medical cases and diseases of women and children. One of the Assistant-Physicians sees the medical out-patients daily, between eleven and two; and one of the Assistant-Surgeons sees the surgical patients daily, between twelve and two.

For further information see Advertisement.

Winter Session.

Anatomy and Physiology.—Mr. Savory, Mon. Tu. Th. Fri. at 9.
Anatomy, Descriptive and Surgical.—Mr. Holden, Mr. Callender, Tues. Wed. Thur. Fri. at half-past 2 o'clock.
Anatomical Demonstrations.—Mr. Baker, Mr. Langton, daily half-past 10 to 2 o'clock.
Chemistry.—Dr. Odling, Mon. Fri. half-past 10, Wed. 10.
Medicine.—Dr. Black, Mon. half-past 2, Tu. Thur. half-past 3.
Surgery.—Mr. Paget, Mr. Coote. Mon. Wed. Sat. 9 o'clock.

Summer Session.

Materia Medica, &c.—Dr. Farre, Tues. Wed. Thur. Sat. 10.
Midwifery, &c.—Dr. Greenhalgh, Tues. Wed. Fri. Sat. at 9.
Botany.—Rev. G. Henslow, Mon. Wed. Sat. at 9 o'clock.
Medical Jurisprudence.—Dr. Edwards, Mon. Fri 10, Thur. 11.
Practical Chemistry.—Dr. Odling, Mon. Tues. Thur. Fri. 11 to 1.
Comparative Anatomy.—Dr. Church, Tues. Fri. half-past 2.
Pathology and Morbid Anatomy.—Dr. Church.
Microscopical Anatomy.—Mr. Savory.
Ophthalmic Surgery.—Mr. Callender, Mr. Langton.
Dental Surgery.—Mr. Coleman.
Practical Pharmacy.—Mr. Wood.
Operative Surgery. *(demst.)*—Mr. Baker, Mr. Langton.
Diseases of the Ear.—Mr. T. Smith.
Diseases of the Skin.—Dr. Andrews, Dr. Southey.
Orthopædic Surgery.—Mr. Willett.

HOSPITAL PRACTICE.

Physicians.—Dr. Farre, Tues. Thurs. Sat.; Dr. Black, Dr. Martin, Dr. Edwards, Mon. Wed. Thur. Fri. at half-past 1.
Assistant-Physicians.—Dr. Harris, Mon. Thur. at 11 o'clock; Dr. Andrew, Sat. 11; Dr. Southey, Dr. Church, Wed. at 11.
Surgeons.—Mr. Paget, Mon. Thur. Sat.; Mr. Coote. Mon. Thur. Sat.; Mr. Holden, Mr. Savory, Tues. Fri. Sat.
Assistant-Surgeons.—Mr. Callender, Fri. at 12 o'clock; Mr. T. Smith, Fri. at 12 o'clock; Mr. Willett, Mr. Langton.
Clinical Medicine.—Drs. Farre, Black, Martin, and Edwards, Tues. 12, Wed. 9 o'clock.
Clinical Surgery.—Mr. Skey, Tues. Thur. at half-past 1 o'clock, Mr. Paget, Mr. Coote, Mr. Holden, Mr. Savory, Sat. at 9 o'clock.

Clinical Midwifery, &c.—Dr. Greenhalgh, Wed. at 9 o'clock. Operations Wed. and Sat. at half-past 1 o'clock.

Fee for all the Lectures required by the College and Hall, £52 10s. ; fee for ditto, and Hospital Medical and Surgical Practice, £99 15s.

ST. THOMAS'S HOSPITAL.

THIS is the borough hospital which was removed for the Charing-cross Railway. The Surrey Hall affords temporary accommodation until the new hospital on the site at Stangate shall have been erected, when, we doubt not, a new impetus will be given to the charity and the school.

Mr. Solly, F.R.S., will give the introductory address this year on the 1st of October.

PRIZES AND APPOINTMENTS FOR THE SESSION.

First Year's Students.—College prizes of £30, £20, and £10.

Second Year's Students.—Prizes of £30, £20, and £10. The dresserships and the clinical and obstetric clerkship.

Third Year's Students.—Prizes of £30, £20, and £10. The two house surgeoncies, the resident accoucheurship, two hospital registrarships at a salary of £40 each, or one at £80, are awarded to third and fourth year's students, according to merit.

The William Tite Scholarship, founded by Wm. Tite, Esq., M.P., F.R.S., the proceeds of £1000 Consols, tenable for three years, is awarded every third year.

The dressers are provided with rooms and commons free of expense. The Granger Testimonial Prize of £20, awarded biennially to third or fourth year's students, for the best Physiological Essay, to be illustrated by preparations and dissections. The Cheselden Medal, for Surgery and Surgical Anatomy. The Treasurer's Gold Medal, for general proficiency and good conduct.

FEE

To hospital practice and lectures for the first and second year, each, £40 ; and £10 for each succeeding year ; or £90 perpetual.—(For further particulars, see advertisements).

Winter Session.

Anatomy and Physiology.—Dr. Bristowe, Mr. Ord, Monday, Wednesday, Friday, at 4 o'clock.
Anatomy, Descriptive.—Mr. S. Jones, Monday, Friday, Saturday at 1 o'clock, Thursday at 3 o'clock.
Anat. Demonstrations.—Mr. Rainey, Mr. Croft, daily, 9 to 3.
Chemistry.—Dr. A. J. Bernays, Tues. Thur. Sat. at 11 o'clock.
Medicine.—Dr. Barker, Dr. Peacock, Mr. Solly, Monday, Wednesday, Thursday, at 2 o'clock.
Surgery.—Mr. Solly, Mr. Le Gros Clark, Tuesday at 4 o'clock, Wednesday and Friday at 3 o'clock.

Summer Session.

Materia Medica, &c.—Dr. Clapton, Tu. Th. Fr. at 2 o'clock.
Midwifery, &c.—Dr. Barnes, Mon. Tues. Thur. Fri. at 3 o'clock.
Botany.—Dr. J. Wale Hicks, Mon. Wed. Thur. at 12 o'clock.
Medical Jurisprudence.—Dr. Jervis, Mon. Thur. Sat. at 8 o'clock.
Practical Chemistry.—Dr. A. J. Bernays, Friday at 11 o'clock, Tuesday and Thursday from 10 to 12 o'clock.
Comparative Anatomy.—Mr. Ord, Tues. Thur. at 1 o'clock.
Pathology.—Mr. Simon.
Ophthalmic Surgery.—Mr. S. Jones, Mon. Fr. at 1 o'clock.
Dental Surgery.—Mr. Elliott, Tuesday, Friday, at 11 o'clock.
Microscopical Demonstrations.—Mr. Rainey, Tues. half-past 12.
Operative Surgery.—Mr. Clark.
Practical Pharmacy.—Mr. Whitfield.

HOSPITAL PRACTICE—Daily, 8 or 9 o'clock.

Physicians.—Dr. Barker, Dr. R. Bennett, Dr. Goolden, Dr. Peacock, Dr. Bristowe, Dr. Barnes (*obst.*)
Assistant-Physicians.—Dr. Clapton, Dr. Gervis (*asst.-obst.*)
Surgeons.—Mr. Solly, Mr. Le Gros Clark, Mr. Simon.
Assistant-Surgeons.—Mr. S. Jones, Mr. J. Croft.
Clinical Medicine.—Dr. Barker, Monday, at 3 o'clock ; after visits, Dr. Bennett, Dr. Goolden.
Clinical Midwifery, &c.—Dr. Barnes.

Post-mortem examinations at half-past 9 ; operations, Wednesday, at half-past 1 ; Saturday, at half-past 9.

GUY'S HOSPITAL.

THIS old favourite borough school still attracts as many students as ever. The hospital is smaller than some others, but the excellence of its appointments, its situation, and its superior staff, suffice to keep up its old renown. In special departments, Guy's is the most advanced. This hospital has set the example of giving the appointments to its special departments to gentlemen not on the staff. This liberality has enabled it to secure the leading specialists of the country in its service, and has done more than all the other hospitals together to put down all improper coquetting with specialism.

Guy's is situated close to the London Bridge Railways. Hence, great facilities for getting to any part of London or the country. It is quite practicable for students to reside a little distance down either of the lines that converge at this point, and thus enjoy the benefit of country air during their hospital career. For those who wish to live close to the hospital, there are many lodgings to be had at a moderate price.

PRIZES.

House-Surgeons are appointed every four months from those Students who have obtained the College diploma.

Six Scholarships, varying in value from £25 to £40 each, will be awarded at the close of each Summer Session for general proficiency.

Two Gold Medals will be given by the Treasurer—one for Medicine, and one for Surgery.

A Voluntary Examination will take place at entrance, in Elementary Classics and Mathematics. The three first candidates will receive respectively £25, £20, £15.

Winter Session.

Anatomy and Physiology.—Dr. Pavy, Mon. Wed. Fri. at 4.
Anatomy, Descriptive.—Mr. Durham, daily Mon. Sat. at 9.
Demonstrations.—Mr. Bankart, Dr. Pye-Smith, daily, 9 to 4.
Chemistry.—Dr. Phillips, Dr. A. Taylor, Tu. Th. Sat. at 11.
Medicine.—Dr. Owen Rees, Dr. Wilks, Mon. Wed. Fri. at 3.
Surgery.—Mr. Birkett, Tu. Th. Sat. at 3½ and a quarter to 10.

Summer Session.

Materia Medica, &c.—Dr. Habershon, Tu. Th. Sat. at 3.
Midwifery, &c.—Dr. Oldham, Dr. Hicks, Tuesday, Wednesday, Thursday, Friday, at a quarter to 9 A.M.
Botany.—Mr. Johnson, Tues. Th. Sat. at half-past 11.
Medical Jurisprudence.—Dr. A. Taylor, Tuesday, Thursday, Saturday, at 10 o'clock.
Practical Chemistry.—Dr. Stevenson, Mon. Wed. Fri. 10 to 1.
Comparative Anatomy.—Dr. Pye-Smith, Tues. Fri. at 12 45.
Pathology and Morbid Anatomy.—Dr. Moxon, daily at half-past 2 o'clock ; in Summer, Sat., at a quarter to 9.
Operative Surgery.—Mr. Bryant, Wed. at 3 o'clock.
Ophthalmic Surgery.—Mr. Poland, Mr. Bader, Mon. at 8 45.
Aural Surgery.—Mr. Hinton.
Demonstration of Cutaneous Diseases.—Dr. Fagge, Tues. at 1.

HOSPITAL PRACTICE.

Physicians.—Dr. Owen Rees, Mon. Thur. Dr. Habershon, Tues. Fri. Dr. Wilks, Mon. Thur. Dr. Oldham (*obst.*) Tues. Thur. at half-past 1 o'clock.
Assistant-Physicians.—Dr. Pavy, Dr. Moxon, Dr. Fagge, Dr. Hicks (Obst.), Thur. Sat. at 12. Out patients at 12 o'clock.
Surgeons.—Mr. Cock, Mon. Thur. Sat. Mr. Hilton, Mon. Thur. Mr. Birkett, Mon. Thur. Mr. Poland, Wed. Sat. Messrs. Poland and Bader (*oph.*) Mon. Thur. Mr. Salter [*dental*] Tues. Fri. at half-past 1 o'clock.
Assistant-Surgeons.—Mr. C. Forster, Sat. Mr. T. Bryant, Mon. Thur. Mr. Durham, Wed. Out patients at 12 o'clock.
Clinical Medicine.—Dr. Owen Rees, Dr. Habershon, Dr. Wilks. In Summer—Dr. Pavy, Dr. Moxon.
Clinical Surgery.—Dr. Fagge, Mr. Cock, Mr. Hilton, Mr. Birkett, Mr. Poland. In Summer—Mr. C. Forster, Mr. Bryant.
Clinical Midwifery.—Mr. Durham, Dr. Oldham, Dr. Hicks.

FEES.

For the entire of the Lectures and Hospital Practice—In the first year, £40 ; second year, £40 ; and every succeeding year £10 ; perpetual to the whole, £100. For further particulars see Advertisement.

UNIVERSITY COLLEGE AND HOSPITAL.

THIS is situated in a very central position, near the Gower-street Station of the Underground Railway, affording facilities for gentlemen residing in many parts of London. The College gives instruction in every department of knowledge, and specially prepares students for degrees in all the Faculties at the University of London. There is, however, no theological faculty, the College, like the

University with which it is in intimate connection, being founded on the non-sectarian principle. The Medical Faculty and the Hospital are very complete and flourishing as educational institutions. Dr. Hare, one of the esteemed physicians, has recently retired. The University College School specially prepares boys to be ready at a proper age to enter the College.

PRIZES.

Liston Gold Medal for Clinical Surgery. Dr. Fellowes' Medals for Clinical Medicine, two gold and two silver. Filliter Exhibition for proficiency in Pathological Anatomy £30.

An Atkinson Morley Scholarship for the promotion of the study of Surgery, £45 per annum, tenable for three years.

Entrance Exhibitions.—Three Entrance Exhibitions of the respective value of £30, £20. and £10 per annum, tenable for two years, are awarded, upon examination, to gentlemen who are about to commence their first winter's attendance in a Medical School.

The Examination, by written papers, will be in Classics, Elementary Mathematics, Natural Philosophy, and in either French or German. at the option of the candidate, and will take place at the College on Wednesday and Thursday, the 25th and 26th September. See advertisement.

There are no students resident in the College itself, but in many of the streets close by lodgings are to be had at a moderate price.

Winter Term.

Anatomy and Physiology.—Dr. Sharpey, daily ex. Sat. at 10.
Anatomy, Descriptive.—Mr. Ellis, daily, at 12 o'clock.
Chemistry.—Dr. Williamson, daily, except Sat. at 11 o'clock.
Medicine.—Dr. Reynolds, daily, except Saturday, at 9 o'clock.
Surgery.—Mr. Marshall, Tues. Thur. Fri. at 4 o'clock.

Summer Term.

Materia Medica, &c.—Dr. S. Ringer, daily, ex. Sat. at 12.
Midwifery, &c.—Dr. Hewitt, daily, except Sat. at 9 o'clock.
Botany.—Mr. Oliver, daily, except Sat. at 4 o'clock.
Medical Jurisprudence.—Dr. G. Harley, Tuesday, Wednesday, Thursday, Friday. at 10 o'clock.
Practical Chemistry.—Dr. Williamson, daily, except Sat. at 11.
Natural Philosophy.—Mr. Foster, Mon. Wed. Fri. at 4.
Comparative Anatomy and Zoology.—Dr. Grant (in winter), daily, except Saturday, at 3 o'clock.
Histology and Practical Phys.—Dr. Foster, Mon. and Wed. at 4.
Ophthalmic Surgery.—Mr. Wharton Jones, Tues. Thurs.
Dental Surgery.—Mr. Ibbetson (in winter), Tues. Thurs. at 6.
Operative Surgery.—Mr. C. Heath, daily, at 3 o'clock.

HOSPITAL PRACTICE.

Physicians.—Dr. Jenner, daily, 1 and 2 o'clock, 12 months, £16 10s.; Dr. J. R. Reynolds, Dr. Harley, Dr. W. Fox, Dr. S. Ringer. Dr. Hewitt (*acc.*), each twice weekly. Fees, with Surgical Practice, £21 15s.
Surgeons.—Mr. Erichsen, Mr. J. Marshall. daily, at 1 and 2 o'clock; Sir H. Thompson, twice a week, at 1 and 2 o'clock; Mr. T. W. Jones (*ophth.*), thrice weekly, 12 months, £16 10s.—Perpet., £27.
Assistant Surgeons—Mr. B. Hill, Mr. C. Heath, Mr. Streatfield (*ophth.*), Mr. Ibbetson (*dent.*).
Clinical Medicine.—Dr. Jenner, fortnightly; Dr. Reynolds. Dr. W Fox, (Dr. Hillier, Skin Inf.), twice a week.
Clinical Surgery.—Mr. Erichsen, Mr. Marshall, twice a week; Sir H. Thompson, fortnightly.
Clinical Midwifery, &c.—Dr Hewitt, fortnightly.
Operations, Wednesday, at 2 o'clock.

FEES.

For all the Lectures required by the College and Hall, £68 3s. For ditto and Hospital Medical and Surgical Practice, £93 3s.

THE LONDON HOSPITAL.

This large hospital is situated at the east end of London, in a district where accidents are of frequent occurrence, and as a field for the study of surgery has always been pre-eminent. It contains upwards of 500 beds; of these 160 are devoted to medical cases, and the remainder to surgical. About 200 are reserved for cases of accident. The in-patients last year numbered 5109; the out-patients, 45,206. During the year special departments have been organised for diseases of the eye, ear, and skin. Special wards are also set apart for venereal and obstetric cases.

Physicians.—Dr. Davies, Dr. Andrew Clark, Dr. Ramskill.
Assistant-Physicians.—Dr. Down, Dr. H. Jackson, Dr. Mackenzie. Dr. H. G. Sutton.
Surgeons.—Mr. Adams, Mr. Curling, F.R.S; Mr. Hutchinson.
Assistant-Surgeons.—Mr. Maunder, Mr. Couper, Mr. Little, Mr. Rivington.
Obstetric-Physician.—Dr. Head.
Assistant-Obstetric Physician.—Dr. Palfrey.
Surgeon-Dentist.—Mr. Barrett.
Lectures.—Medicine.—Dr. Herbert Davies, Dr. Andrew Clark, Dr. J. S. Ramskill.
Surgery.—Mr. J. Hutchinson.
Descriptive and Surgical Anatomy.—Mr. Adams, Mr. Rivington.
Physiology and General and Morbid Anatomy, Practical Histology.—Dr. Hughlings Jackson, Dr. Mackenzie.
Practical Anatomy.—Mr. Rivington, Mr. James Adams.
Practical Chemistry.—Dr. Letheby, Dr. Tidy
Midwifery and Diseases of Women.—Dr. Edward Head.
Forensic Medicine.—Mr. Rogers. Dr. Prosser James.
Materia Medica and General Therapeutics.—Dr. Down.
Ophthalmic Surgery.—Mr. Hutchinson.
Botany.—Dr. Silver.
Special Operative Surgery.—Mr. Maunder.
Pathological Demonstrations.—Dr. Hughlings Jackson, Dr. Sutton, Mr. Little.
Pathological Anatomy.—Dr. Sutton.

Since our last Students' Number, Dr. Parker having resigned through ill health, and Dr. Fraser shortly afterwards having also retired, Drs. Mackenzie and Sutton were elected on the hospital staff. and the lectures on medicine were then divided between the three physicians. Dr. Ramsbotham being prevented by illness from lecturing last summer, Dr. Head, the Obstetric Physician, delivered the course on Midwifery, and Dr. Prosser James took the share of Forensic Medicine. Dr. Ramsbotham having since retired, these gentlemen have been elected to the respective lectureships for the ensuing session. Dr. Tidy has been elected colecturer with Dr. Letheby on Chemistry. Dr. Silver takes the lectures on Botany, and Mr. James Adams aids Mr. Rivington in the Demonstrations in Anatomy.

PRIZES AND APPOINTMENTS.

1. Two Scholarships will be awarded to first year's students. The first, value £20, to the first student in Human Osteology. The second, value £25, to the first in Anatomy, Physiology, and Chemistry.

2. The Duckworth-Nelson Prize, value £10 10s. will be awarded in May, 1868, in Practical Medicine and Surgery. 3. Two Gold Medals (Medicine and Surgery) annually to students for diligent performance of their duties in the hospital.

4. A Resident Medical Officer, with board, receives £75 for twelve months. He is eligible for twelve months longer, and then receives £100. 5. A Medical and Surgical Registrar is appointed, at £25 a year.

6. Three House-Surgeons are elected every six months, and a Resident Accoucheur, with free commons, and are eligible for re-election for three months.

9. Money prizes, to the value of £60 per annum. are awarded to the Dressers in the Out-Patients' Room. 10. Two Assistants are appointed for the Medical Out-Patients, and receive £40 each annually.

The introductory lecture will be delivered by Dr. Letheby.

THE MIDDLESEX HOSPITAL.

This hospital contains upwards of 300 beds, of which 185 are for Surgical, and 120 for Medical cases. There are special departments for Cancer (36 beds), for Diseases of the Eye and Teeth, Diseases of Women and Children, and for Syphilis.

Prizes are given for examinations in the several classes. Three Clinical Prizes also, including the Governor's Prize of Twenty Guineas, will be awarded to these students who shall pass the most satisfactory examination at the bedside and in the post-mortem room. There are also valuable rewards in the form of Five Resident Clinical Appointments.

The Introductory Lecture will be delivered on Tuesday, October 1st, at 3 p.m., by Dr. Cobbold, F.R.S.

Winter Session.

Physiology.—Dr. Sanderson, Mr. Hulke, Mon. Wed. Fri. at 4.
Anatomy, Descriptive and Surgical.—Dr. Robert Liveing, daily (except Sat.) at 10 o'clock.
Demonstrations.—Drs. R. Liveing and Reeves, Tu. Thur. at 3.
Chemistry.—Mr. Taylor, Mr. Heisch, M. Wed. Fri. Sat. at 11.
Medicine.—Dr. Murchison, Tues. Thur. Sat. at 9 o'clock.
Surgery.—Mr. Shaw, Mr. de Morgan, Mon. Wed. Fri. at 9.
Pathology.—Mr. Sibley, Dr. Cayley, Tues. Thur. at 4 o'clock.

Summer Session.

Materia Medica.—Dr. H. Thompson. Mon. Wed Fri. at 9.
Midwifery, &c.—Dr. J. H. Davis, Mon. Wed. Fri. at 10 o'clock.
Botany.—Dr. T. S. Cobbold, Tues. Thurs. Sat. at 4.
Medical Jurisprudence.—Dr. Greenhow, Tues. Thurs. Sat. at 9.
Practical Chemistry.—Mr Taylor, Mr. Heisch, M. W. F. at 11.
Comparative Anatomy.—Dr. T. S. Cobbold, Wed. Fri. at 4.
Histology and the Microscope.—Dr. Webb, Tues. Thur. at 3.
Ophthalmic Surgery.—Mr. Hulke.
Dental Surgery.—Mr. Tomes, Mr. Turner, daily at 9 o'clock.
Practical Pharmacy and Dispensing.—Dr. Stephen.

HOSPITAL PRACTICE.

Physicians.—Dr. Goodfellow, daily at 1, Dr. H. Thompson, Dr. Murchison. Dr. J. H. Davis (*obst.*), Tu. Fri. at half-past 1.
Assistant-Physicians.—Dr. Greenhow, Dr. Sanderson, Dr. R. Liveing.
Surgeons.—Mr. Shaw, daily. Mr. de Morgan, at 1 o'clock. Mr. Moore, Mr. Nunn, Mr. Tomes (*dental*), daily at 9.
Assistant-Surgeons.—Mr. Hulke, Mr. G. Lawson, Mr. J. S. Turner (*assist. dental*).
Clinical Medicine.—The Physicians, Fri. at 3 o'clock.
Clinical Surgery.—The Surgeons, Mon. at 3 o'clock.

Fee for all the Lectures required by the Colleges and Hall, £50. For ditto, and Hospital, Medical, and Surgical Practice, £90.—For further particulars see advertisement.

WESTMINSTER HOSPITAL.

THIS is near the Abbey and the Houses of Parliament, and will be found convenient for all in that neighbourhood. It is well appointed in every respect, and one of the most moderate in respect to fees. The whole course of study for the usual examinations may here be completed for seventy-five guineas, payable in instalments. The perpetual fee is only eighty guineas. Resident appointments, clerkships, and dresserships are all conferred without extra payments.

Winter Session.

Anatomy and Physiology.—Mr Power, Mon. Wed. Fri, at 3.
Anatomy, Descriptive.—Mr. W. F. Teevan, Tuesday, Wednesday, Thursday, Friday, at half-past 9 o'clock.
Anat. Demonstrations.—Mr. G. E. L. Pearse, daily, 10 to 1.
Chemistry.—Dr. A. Dupré, Tu. Th. 3 o'clock, Fr. half-past 10.
Medicine.—Dr. Basham, Mon. Tues. Th. Fri at 4 o'clock.
Surgery.—Mr. Holthouse. Mon. Wed. Fri. at 5 o'clock.

Summer Session.

Materia Medica, &c.—Dr. Anstie, Mon. Th. Fri. at 3 o'clock.
Midwifery, &c.—Dr. F. Bird, Tues. Thur. Fri. at 4 o'clock.
Botany.—Mr. Syme, Mon. Wed. Fri. at half-past 11 o'clock.
Medical Jurisprudence.—Sir Duncan Gibb, Dr. Willis, Monday, Wednesday, Friday, at 3 o'clock.
Practical Chemistry.—Dr. A. Dupré, Tu. Th. at 9, 3, 12 o'clk.
Natural Philosophy.—Mr. Brooke, Monday, at 4 o'clock.
Comparative Anatomy.—Mr. Power, Tues. Fri. at 9 o'clock.
Zoology.—Dr. Willis, Wednesday, Saturday, at 12 o'clock.
Ophthalmic Surgery.—Mr. Power, Tues. Thrs. Sat.
Dental Surgery.—Mr. Walker, Thursday. at 12 o'clock.
Microscopical Demonstrations.—Mr. Brooke, Wed. at 4 o'clock.
Practical Pharmacy.—Mr. J. J. Beer.

HOSPITAL PRACTICE.

Physicians.—Dr. Basham, Mon. Thur. at half-past 1 o'clock; Dr. Fincham, Wed. Sat. half-past 1 o'clock; Dr. Radcliffe, Tues. Fri. half-past 1 o'clock; Dr. F. Bird, *(obst. phys.)* Tues. Fri. half-past 1 o'clock.
Assistant-Physicians.—Dr. Anstie, Mon. Thur. at 1 o'clock; Sir Duncan Gibb, Tues. Fri. at 1; Dr Willis, Wed. Sat. at 1.
Surgeons.—Mr. B. Holt, Mon. Thur. half-past 1 o'clock; Mr. Brooke, Tues. Fri. half-past 1 o'clock; Mr. Holthouse, Wed. Sat. half-past 1 o'clock; Mr. Walker, *(surg.-dent.)*, Tues. Thur. Sat. at 1 o'clock.
Assistant-Surgeons.—Mr. Hillman, Mon. Thur. at 1 o'clock; Mr. Power, Wed. Sat. at 1; Mr. Mason, Tues. Fri. at 1.
Clinical Medicine.—Dr. Basham, Thur. half-past 1 o'clock; Dr. Fincham, Sat. half-past 1; Dr. Radcliffe, Fri. half-past 1.
Clinical Surgery.—Mr. Holt, Mon. half-past 1 o'clock; Mr. Brooke, Tues. half-past 1; Mr Holthouse, Wed. half-past 1.
Clinical Midwifery, &c.—Dr. F. Bird, Friday, at 3 o'clock.

Post-mortem examination at 2 o'clock; operations, Tuesday at 2 o'clock.

Fee for all the Lectures required by the College and Hall, £49, 7s. Fee for ditto, and Hospital, Medical, and Surgical Practice, £78, 15s. Perpetual Entry to Lectures and Hospital Practice, £84. For further particulars, see advertisement.

CHARING CROSS HOSPITAL.

THIS hospital, though one of the smaller ones, derives from its situation great advantages. It is in one of the most central positions in London, where there is constant communication with every part. In connection with it the practice of the Royal Westminister Ophthalmic Hospital, close by, affords an excellent opportunity for the study of that branch of the profession.

Winter Session.

Anatomy and Physiology.—Dr. Morris Tonge, daily (except Saturday), half-past 3.
Anatomy, Descriptive.—Mr. Barwell, daily (except Sat.) 9.
Anatomical Demonstrations.—Mr. Bellamy, daily.
Chemistry.—Mr. C. W. Heaton, M. W. F., half-past 10.
Medicine.—Dr. Salter, F.R.S., M. W. F. half-past 2.
Surgery.—Mr. Canton, 9 to 10.

Summer Session.

Materia Medica, &c.—Dr. Headland, T. Th. S. 12 o'clock.
Midwifery, &c.—Dr. Chowne and Dr. Parson, M. W. Thur. 3.
Botany.—Dr. Silver, Tues. Thur. Sat., half-past 10.
Medical Jurisprudence.—Mr. Hird and Mr. Tuson, Monday, Wednesday, Friday, at 4 o'clock.
Practical Chemistry.—Mr. Heaton, M. W. F. 11 to 1 o'clock.
Comparative Anatomy.—W. H. Spencer, B.A., Tues. Thur. Sat. half-past 3.
Pathology and Morbid Anatomy.—Dr. A. J. Pollock.
Dental Surgery.—Mr. Parkinson.
Operative Surgery (Demst).—Mr. Barwell.

HOSPITAL PRACTICE.

Physicians.—Dr. Chowne, Dr. Salter, daily 1 o'clock.
Assistant-Physicians,—Dr. F. W. Headland, Dr. Pollock, 1 to 2.
Surgeons.—Mr. Hancock, Mr. E. Canton, daily 1 o'clock.
Assistant-Surgeons.—Mr. Hird, Mr. Barwell, 1 to 2 o'clock.
Clinical Lectures.—Dr. Chowne, Dr. Salter, weekly.
Clinical Surgery.—Mr. Hancock, Mr. Canton.
Operations, Saturday, 2 o'clock.

FEE for all the Lectures required by the College and Hall, £46 4s. Fee for ditto, and Hospital Medical and Surgical Practice, £72 9s.

The office of Registrar and Pathological Registrar, tenable for two or three years, with an annual stipend, is open to all matriculated students who have obtained their qualifications.

The offices of Resident Medical and Surgical Officers, and Accoucheur's Assistant, with six months' residence at the Hospital, are awarded to senior matriculated students after a competitive examination.

A feature of this school deserving of particular notice is the existence of Free Scholarships for sons of professional men, of reduced circumstances and position.

The Llewellyn Scholarship of £25 is open to all matriculated Students who have just completed their second year, and the Golding Scholarship of £15 a year, tenable for two years to those who have just completed their first year.

The following Medals are awarded annually:—The Gold Medal, for General Proficiency. The Governor's Clinical Silver Medal. Silver Class Medals, on all the subjects of the Lectures. Bronze Class Medals, on all the subjects of the Lectures.

KING'S COLLEGE HOSPITAL.

THIS is a Church of England establishment, founded avowedly as a sectarian institution, to act as a counterpoise to University College, in connection with the London University, and having a theological department as well.

It is largely supported by members of the Established Church, though it may be thought strange that these should not rather resort to the Universities of Oxford and Cambridge.

The Medical Department is complete. The Hospital, situate in Portugal-street, Lincoln's-inn, is not too far distant. Its establishment was largely due to the energy of the late Dr. Todd.

ST. GEORGE'S HOSPITAL.

One of the greatest advantages of this hospital is its magnificent situation at the corner of Hyde-park. For beauty and salubrity the position is unrivalled. True, the neighbourhood is an expensive one for those who may want apartments close by, and even the most accessible suburbs, Kensington and Brompton, to and from which omnibuses pass the door every few minutes, are not adapted for slender purses. There are, however, lodgings to be found in the less fashionable parts—say Chelsea and Knightsbridge, within a walking distance.

ST. MARY'S HOSPITAL, PADDINGTON.

This hospital is situated near the terminus of the Great Western Railway.

All the resident medical appointments (including the House-Surgeoncies) are open to the pupils without expense of any kind, and are equivalent to five scholarships of the annual value of £50. The Resident Registrarship is of the value of £100 a year, with board and lodging.

Provincial Schools of Medicine.

MANCHESTER ROYAL SCHOOL OF MEDICINE.

The Winter Session will commence on Tuesday, October 1st, at 12 o'clock, when an Introductory Address will be delivered by Dr. Thorburn, after which the Scholarships and Prizes for the past session will be distributed.

SCHOLARSHIPS AND PRIZES.

In addition to three Scholarships, of the value, respectively, of £20, £15, and £10, for Perpetual Students, Prizes for General Proficiency have been substituted for Class Prizes, in accordance with the suggestions issued by the Royal College of Surgeons. At the end of the Sessions, Certificates of Honour will be awarded for regularity of attendance upon Lectures, and general good conduct.

Winter Session.

Anatomy and Physiology.—Mr. Smith, Tus. Wed. Thur. at 12.
Anatomy, Descriptive.—Mr. Lund, Tu. Wed. Th. Fri. at 8·45.
Anatomical Demonstrations.—Mr. S. M. Bradley.
Chemistry.—Mr. D. Stone, Tues. at 1; Wed. at 11; Fri. at 1.
Medicine.—Drs. Roberts and Morgan, Mon. at 1, Wed. at 2, Fri. at 1 o'clock.
Surgery.—Mr. G. Southam, Mon. Tues. Thur. at 2 o'clock.

Summer Session.

Materia Medica.—Mr. A. Somers, Tues. Wed. Fri. at 12.
Midwifery, &c.—Dr. Thorburn, Mon. Wed. Thur. Fri. at 9.
Botany.—Mr. Grindon, Mon. Wed. Thur. at 2 o'clock
Med. Jurisprudence.—Mr. Harrison, Mon. Wed. at 1, Fri. at 1·30.
Practical Chemistry.—Mr. D. Stone, Tues. Thur. at 1 o'clock.
Comparative Anatomy.—Mr. Bradley.
Pathology and Morbid Anatomy.—Dr. Simpson, Mon. Thur. at 12 o'clock.
Ophthalmic Surgery.—Mr. Hunt, Mon. Sat. at 8·45.

HOSPITAL PRACTICE.—MANCHESTER ROYAL INFIRMARY.

Daily, 10 to 12 o'clock.

Physicians.—Drs. E Wilkinson, Watts, Browne, Roberts, Simpson and Morgan. Dresserships, full period, £21.
Surgeons.—Messrs. Beever, Smith, Dumville, Southam, F. Heath. and Lunch. Dresserships, full period, £31 10s.

Fee for all the Lectures required by the College and Hall, £42. Ditto and for Hospital, Medical and Surgical Practice. —For further particulars see advertisement.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

This School is in connexion with the Royal Infirmary, a very large and important institution, in which the facilities for study, especially of accidental injuries, is very valuable.

The introductory lecture will be by Mr. A B. Steele Post-mortems are made, and instruction is given in Morbid Anatomy by Dr. Rawdon.

PRIZES.

Scholarship, value £42, consisting of a gold medal, value £10, 10s., and six months' free board and residence, with dresserships and clerkship in the Royal Infirmary. In case the scholarship is gained by a resident pupil, six months' payment (£31. 10s.) will be returned to him.

Four exhibitions, value £41, 10s. each, consisting of free board and residence in the Royal Infirmary for six months, with dresserships on award of the Medical Board.

Winter Session.

Physiology.—Dr. Waters, Mon. Wed. Fri. at a quarter-past 9.
Anatomy.—Mr. Harrison, Tu. Th. Sat. at a quarter-past 9.
Anatomical Demonstrations.—Drs. Roberts and Glynn. Free.
Chemistry.—Dr. Birkenhead, Mon. Wed. Fri. at 10·15.
Medicine.—Dr. Cameron, Mon Tu Th. Fri. at 5 o'clock.
Surgery.—Mr. Bickersteth, Mon. Wed. Th. Fri. at 6 o'clock.

Summer Session.

Materia Medica.—Dr. J. B. Nevins, daily at 8 o'clock.
Midwifery, &c.—Mr. Steel and Dr. Gee, Mon. Wed. Fri. at 3.
Botany.—Dr. Roberts, Tu. Th. Fri. at a quarter-past 9 o'clock.
Medical Jurisprudence.—Dr. E. Whittle and Dr. Birkenhead, Mon. Wed. Fri. at 4 o'clock.
Practical Chemistry.—Dr. Birkenhead, Mon. Thur. at 10·15.
Pathology and Morbid Anatomy.—Dr. Rawdon, Wed. at 3.
Ophthalmic Surgery.—Dr. R. H. Taylor, Tu Fri. at 2 o'clock.
Dental Surgery.—Mr. Snape. Tu. Fri at 9 o'clock.
Operative Surgery.—Mr. Harrison.

HOSPITAL PRACTICE.

Physicians.—Dr. Vose, Dr. Turnbull, Dr. Inman, from 12 to 2·30.
Surgeons.—Mr. Stubbs, Mr. Bickersteth, Mr. Hakes, 12 to 2·30.

FEES.

For six months' medical and surgical practice, £10, 10s.; for the first year, £18, 18s.; for the second, £12, 12s.; for the third, £10, 10s; for three years, £36. 15s. Students are admitted to the practice of the Lock Hospital attached to the Royal Infirmary; fee, £3, 3s. per annum; six months, £2, 2s. Fee for all the lectures required by the College and Hall, £42. For further particulars see Advertisement.

BIRMINGHAM.

SYDENHAM COLLEGE.

Sydenham College was established for the purpose of affording a complete Medical education. It is governed by a Council, composed of seventy eminent practitioners in the Midland Counties, and affords every facility for the study of medicine. A Classical and Mathematical Department has also been added, with special reference to the preparation of students for their preliminary examination.

Winter Session.

Anatomy and Physiology.—Robert C. R. Jordon, M.D.; T. H. Bartlett, M.B
Anatomy, Descriptive and Surgical.—Furneaux Jordon, F.R.C.S.
Anatomical Demonstrations.—Frowd Jones, M.R.C.S.
Principles and Practice of Medicine.—James Russell, M.D., F.R.C.P.
Principles and Practice of Surgery.—Alfred Baker, F.R.C.S., C. J. Bracey, M.B.
Dental Physiology and Surgery.—Thomas Howkins, M.R.C.S.
Chemistry.—Alfred Hill, M.D., F.C.S.

Summer Session.

Midwifery, and the Diseases of Women.—John Bassett, M.R.C.S.
Materia Medica and Therapeutics.—B. W. Foster, M.D., M.R.C.P. (Lond).
Practical Chemistry.—Alfred Hill, M.D., F.C.S.
Botany, Structural and Systematic.—Thomas Savage, M.D.
Forensic Medicine.—Thomas Swain, M.R.C.S.
Toxicology.—Dr. Hill.
Medical Tutor.—H. F. Marshall, M.R.C.S.

PRIZES.

The Warneford Scholarships: four scholarships of £10 each, held for two years, conferred for diligence and good conduct.

The Warneford Gold and Silver Medals for essays of a religious as well as a scientific nature. The Founder's Scholarship, conferred on a first year's resident student after examination at the end of the summer session. Honorary medals and certificates of honour are annually given. The Percy and Clay Prizes of five guineas each, in books, for proficiency in the German and French languages respectively.

QUEEN'S COLLEGE.

Winter Session.

Anatomy and Physiology.—Dr. Norris.
Anatomy, Descriptive.—Mr. Lloyd.
Demonstrations.—Dr. James Hinds.
Chemistry.—Mr. Anderson.
Medicine.—Dr. D. Nelson.
Surgery.—Mr Sands Cox, Mr. O. Pauleston, and Mr. Furneaux Jordan.

Summer Session.

Materia Medica, &c.—Dr. Divers.
Midwifery, &c.—Mr. Clay and Dr. Suckling.
Botany.—Dr. Hinds.
Medical Jurisprudence.—Mr. Postgate.
Practical Chemistry.—Mr Anderson.
Pathology and Morbid Anatomy.—The Physicians and Surgeons.
Dental Phys. and Surgery.—Mr. Parker.
Clinical Medicine.—Dr. Fleming and Dr. Foster.
Clinical Surgery.—Messrs. West, Gamgee, and Jordan.

THE QUEEN'S HOSPITAL.

The hospital has lately obtained, by Act of Parliament, separation from the Queen's College, and will now be open on equal terms to the students of both the medical schools. Each physician and surgeon visits his wards with the students on an appointed day in each week, and special courses of lectures are given by each of the officers in succession. By these arrangements the students can follow the practice of each physician and surgeon, during the whole of the Winter and Summer Sessions, and in the same periods attend the special courses delivered by each Clinical professor.

HOSPITAL PRACTICE—QUEEN'S HOSPITAL.

Physicians.—Dr. A. Fleming and Dr. Foster.
Surgeons.—Messrs. West, Gamgee, and F. Jordan, Mr. Wilders (*asst*). Dr. Suckling and Dr. Earl (*obst.*)
Fees for all the Lectures required by the College and Hall,
Ditto, and for Hospital Medical and Surgical Practice, £68 5s.

BIRMINGHAM GENERAL HOSPITAL.

Physicians.—Dr. G. F. Evans, Dr. Bell Fletcher, Dr. James Russell. and Dr. W. F. Wade.
Surgeons.—Mr. D. W. Crompton, Mr. Alfred Baker, Mr. O. Pemberton, and Mr. T. H. Bartleet.
Resident Physician and Tutor.—Dr. Wyllie.
Resident Surgeon.—Mr. Addenbrooke.

SHEFFIELD SCHOOL OF MEDICINE.

THE next Session will commence on October 1st., when the Introductory Address will be delivered by W. Baker Esq., F.C.S., Associate of the Royal Schools of Mines, London.

Winter Session.

Anatomy —Mr. Skinner and Mr. W. J. Le Tall.
Demonstrations of Anatomy.—Messrs. Skinner and Jackson.
Physiology —Dr. Mason and Mr. T. H. Morton.
Medicine —Dr. Elam and Dr. Frank-Smith.
Surgery.—Mr. W. F. Favell and Mr. Parker.
Chemistry.—Mr. Allen.
Clinical Medicine.—Dr. de Bartolomé, Dr. Elam, and Dr. Law.
Clinical Surgery.—Mr. Barber, Mr. Favell, and Mr. Parker.

Summer Session.

Midwifery and Dis. of Women.—Drs. Aveling and Keeling.
Materia Medica.—Dr. Young.
Medical Jurisprudence.—Mr. A. Jackson and Mr. Leeds.
Botany.—Mr. Birks and Dr. Mason.
Practical Chemistry.—Mr. Allen.
Dental Surgery.—Mr. Merryweather.
Pathology and Microscopy.—Mr. Brown (at the Infirmary).
Operative Surgery.—Mr. Favell and Mr. Parker.

SHEFFIELD GENERAL INFIRMARY.

Physicians.—Dr. De Bartolomé, Dr. Elam, and Dr. Law.
Surgeons.—Mr. Barber, Mr. Favell, and Mr. Parker.
House Surgeon.—Mr. G. A. Brown.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

Physicians.—Dr J. C. Hall, Dr. Law, and Dr. Frank-Smith.
Surgeons.—Mr. Chesman, Mr. A. Jackson, Dr. Keeling.

BRISTOL MEDICAL SCHOOL.

IN this town there is ample opportunity of completing a medical education, and the Western counties have long availed themselves of the instruction there to be obtained.

The Bristol Medical School educates the Students who receive their Clinical instruction in either of the two large hospitals of the city—the Bristol General Hospital and the Bristol Royal Infirmary.

Prizes and certificates of honour are given after competitive examinations amongst students of the first, second, and third years respectively. The interest of £500 will be given to the prizeman of the third year who shall have been educated at the infirmary, and can produce certificates of good conduct and moral character. The prizeman of the third year who shall have been educated at the General Hospital will receive, in addition to the School prize, the sum of twenty guineas, given by the committee of that institution.

Winter Session.

Anatomy and Physiology.—Dr. Martyn, Dr. Fripp, Mon. Wed. Fri. Sat. at a quarter past 9 o'clock.
Anatomy, Descriptive and Surgical.—Mr. Clark, Mr. Lansdown, Mon. Wed. Fri. Sat. at a quarter past 10 o'clock.
Anatomical Demonstrations.—Mr. James, Mr. Wintle.
Chemistry.—Mr. Herepath, Mon. Wed. at a quarter past 8 o'clock, Tues. Thur. at a quarter past 9 o'clock.
Medicine.—Dr. Brittan, Mon. Wed. Fri. at a quarter past 8.
Surgery.—Mr. Coe, Mr. Leonard, Tues. Thur. Sat. at 8½.

Summer Session.

Materia Medica, &c.—Dr. Burder, daily (except Sat.) at 9.
Midwifery.—Dr. Swayne, Mon. Tues. Thur. Fri. at 8 Wed. 10.
Botany.—Mr. Leipner. daily (except Sat.) at half-past 3.
Medical Jurisprudence.—Dr. Marshall, Mr. Herapath (Toxicology), daily (except Sat.) at 9 o'clock.
Practical Chemistry.—Mr. Herepath, daily (except Sat.) at 8.

HOSPITAL PRACTICE.

The General Hospital, founded in 1832, is situated in a populous district near the docks, colleries, manufactories, and railway stations, from which sources the wards are supplied with a great variety of important cases.

The present building was completed and occupied in 1858, and is furnished with many modern improvements. It contains 130 beds, in addition to which the out-patient department affords a large and instructive field of observation. The number of patients treated during the past year was 16,591.

FEES.

Six months, £6; one year, £10; perpetual, £20. Library, £1 1s. per annum. Dressership or clinical clerkship, £5 5s. for six months. Two scholarships of £15 each are awarded annually, and a prize of twenty guineas is given to the hospital student who is successful in the third year's competition at the school. Dressers reside in the hospital in weekly rotation free of expense.

THE ROYAL INFIRMARY.

This infirmary was founded in the year 1735. and is therefore one of the oldest provincial hospitals. It contains 242 beds.

There are eight medical wards, containing 112 beds. The number of medical in-patients admitted last year was 1164.

There are nine surgical wards, containing 126 beds, exclusive of two small private wards for any cases which may require to be kept apart from the other patients.

FEES.

Surgeon's pupil, first year, £12 12s.; two years, £21; three years, £26 5s. Dresser (extra fee), one year, £12 12s.; two years, £21; three years, £26 5s. Physician's pupil. six months, £8; one year, £15; eighteen months, £20; perpetual, £25. Each pupil is required to pay an entrance fee to the infirmary of £5, and a subscription of £1 1s. per annum to the library, which numbers about 2700 volumes. The dressers reside in the infirmary in weekly rotation.

Fees for all the Lectures required by the College and Hall, £47 5s. Ditto, and for Hospital Practice, £87 5s.

PRIZES.

Suple Prize.—A gold medal, value £5 5s., with £7 7s. in money is given annually to each of the two successful candidates in each of the medical and surgical examinations. Clark's Prize.

Irish Schools of Medicine.

SCHOOL OF PHYSIC, UNIVERSITY OF DUBLIN.

This School was established by Act of Parliament 40th George III., and is under the joint government of the Board of Trinity College and the King's and Queen's College of Physicians.

Institutes of Medicine, Professor Law. Materia Medica and Pharmacy, Professor A. Smith. Surgery, Professor R. Smith. Anatomy and Chirurgery, Professor MacDowel.

Its Medical School is at Trinity College, where a spacious Dissecting-room has recently been erected. Information as to the Medical Scholarships and Exhibitions in this School will be found amongst the regulations of the University of Dublin.

WINTER SESSION.

General and Comparative Anatomy—Dr. M'Dowel—Tuesday, Thursday, and Saturday, at 1 o'clock.
Practical Anatomy—Dr. Bennett—Tues. Thurs. and Sat. at 12.
Chemistry.—Dr. Apjohn—Tues. Thurs. and Sat. at 2 o'clock.
Surgery.—Dr. R. W. Smith—Mon. Wed. & Fri. at 2 o'clock.
Practice of Medicine.—Dr. Banks—Mon. Wed. & Fri. at 3.
Midwifery.—(Vacant)—Mon. Wed. and Fri. at 4 o'clock.

SUMMER SESSION.

Materia Medica.—Dr. A. Smith—Mon. Wed. Fri. & Sat. at 2.
Institutes of Medicine and Pathology.—Dr. Law—Wed. Thurs. Fri. and Sat. at 2 o'clock.
Botany.—Dr. A. Dickson—Thur. Fri. and Sat. at 1 o'clock.
Medical Jurisprudence.—Mr. Travers—M. W. and S. at 3.

For further particulars see Advertisements.

SCHOOL OF SURGERY, ROYAL COLLEGE OF SURGEONS.

This school is under the superintendence of the Council of the College, who appoint the professors. The chair of Anatomy and Physiology, which had been filled for nearly half a century by Dr. Jacob, is now entrusted to Dr. Mapother, who will commence his course with a series of twelve lectures on the Comparative Anatomy of Vertebrates—free to the public. The dissecting rooms have been recently much enlarged. Arrangements have been made to give increased facilities for instruction in Operative Surgery and Chemical Analysis. Prizes in Anatomy, and Physiology, and Surgery, will be awarded at the end of the Winter Session. The Junior Surgical Society meets fortnightly in the school, and several prizes have been offered for the best essays read during the Session.

WINTER SESSION.

Anatomy and Physiology, and Comparative Anatomy.—Dr. E. D Mapother—Daily, 2 o'clock.
Descriptive Anatomy.—Dr. Bevan and Mr. Morgan—Daily 12 o'clock.
Demonstrations.—Drs. Croly, Stoney, M'Allister, Hewitt, Knox, and Roe—Daily, 10 to 4 o'clock.
Surgery.—Mr. Hargrave, and Mr. Hughes—Tuesday, Wednesday, and Saturday, 3 o'clock.
Practical Medicine.—Dr. Benson—Mon. Wed. and Fri. at 3.
Chemistry.—Dr. W. Barker—Mon. Wed. and Fri. at 1.

SUMMER SESSION.

Materia Medica.—Mr. MacNamara.
Medical Jurisprudence.—Dr. Geoghegan.
Midwifery.—Dr. Sawyer.
Botany.—Dr. H. Minchin.
Hygiene.—Dr. Mapother.
Fees.—£3 3s. 0d., for each Course—Comparative Anatomy and Hygiene, Free.

THE LEDWICH SCHOOL OF MEDICINE, PETER-STREET.

This School, claiming priority of foundation before any of its kindred unchartered institutions were projected, was established in 1810 by J. Kirby, and has, since then, under the energetic administration of the Messrs. Ledwich and Dr. Mason, maintained a very high prestige as an educational institution. It is situated next door to the Adelaide Hospital in Peter-street, about five minutes' walk from the Meath Hospital, Royal College of Surgeons, and Mercer's Hospital, and the Coombe Lying-in Hospital, and ten minutes from the Catholic University School, the University and the City of Dublin Hospital. The hospital in most immediate connexion with it is Mercer's.

LECTURES, ETC.

Anatomy and Physiology.—Dr. Mason, and O'Leary, five days weekly, 12 o'clock, noon.
Anatomy, Descriptive and Surgical.—Messrs. Bright, Glanville, Corry, five days weekly, 1 o'clock, P.M.
Practical Anatomy and Dissections.—Messrs. O'Leary, Bright, Glanville, Corry, Warder, in the Dissecting-rooms, daily.
Chemistry.—Dr. Cameron. Mon. Wednes. and Frid. 2 o'clock.
Practical Chemistry.—Dr. Cameron, Mon. Wednes Fri. 12.
Materia Medica and Pharmacy—Dr. MacDowell, and Maunsell. Tuesday, Thursday, and Saturday, 12 o'clock, noon.
Botany and Zoology.—Dr. Asken, Mon. Wednes. Fri. 11 o'clock.
Surgery.—Messrs. Wharton, and Ledwich, Mon Wed. Fri. 11.
Midwifery, &c.—Dr. Ringland, Tues. Thurs. and Sat. 3 o'clock.
Medicine—Dr. Moore, Monday, Wednesday, and Friday. at 3.
Medical Jurisprudence.—Dr. Trabere, Tues. Thurs Sat. 11.

There are Endowments in favour of Students, subject to the conditions prescribed by the Founder in the following Departments:—

Two in Anatomy and Physiology; two in Minute Anatomy; two in Practical Anatomy; one in Surgery.

STEEVENS' HOSPITAL SCHOOL.

This hospital is conducted on the plan of the London Hospital Schools, combining, in one establishment, all the departments of medical education. Situated in the centre of a district, occupied by some of the largest manufacturing concerns, its beds are constantly filled with accidents of a serious nature. Immediately adjoining is St. Patrick's (Swift's) Asylum for the Insane, Dr. Croker, consulting physician, being one of the medical attendants. The internal arrangements of the hospital are under the supervision of a qualified resident surgeon, assisted by nine resident pupils or dressers, who are provided with apartments, coal and gas, one of whom must constantly be on duty to attend to accidents which may be admitted, or emergencies which may arise among the large mass of patients in the hospital. All Morbid specimens are most carefully examined and preserved by the curator, who is an officer regularly appointed and paid by the Board of Governors.

WINTER SESSION.

Anatomy and Physiology.—Mr. E. Hamilton—Daily, 10 o'clock.
Practical Anatomy.—Dr. R. M'Donnell, daily at 1 o'clock.
Demonstrations.—Mr. Evans and Mr. Short, daily at 1.
Surgery.—Mr. Colles—Daily, 11 o'clock.
Practical Medicine—Dr. Freke, daily at 11 o'clock.
Chemistry.—Dr. Aldridge.

SUMMER SESSION.

Materia Medica.—Dr. Grimshaw, daily at 12 o'clock.
Botany.—Dr. E. P. Wright, daily at 12 o'clock.
Midwifery.—Dr. Hardy, thrice weekly at 11 o'clock.
Medical Jurisprudence.—Dr. Pollock, daily at 11 o'clock.

THE CARMICHAEL SCHOOL OF MEDICINE.

The various lectures are now delivered, and the dissections carried on in the new building, which the munificence of the late Surgeon Carmichael has given to the Proprietors. As the building was designed, with special reference to the requirements of a large medical class, every convenience is afforded to the student in the prosecution of his studies.

The proximity of the School with the House of Industry Hospitals, and its connection with these Institutions as well as with the Mater Misericordiæ, Meath, and Jervis-street Hospitals, through its teachers, insures equal opportunities to the pupils of becoming thoroughly acquainted with the more immediately practical part of their profession.

Arrangements have now been completed for rendering more available the Carmichael premium bequest, which will hence-

forth enable the Proprietors to distribute prizes to the amount of £60 yearly; and the Scholarship, value £15 yearly, which the friends of the late Dr. Mayne have founded in his name, will be allotted at the termination of the Winter Session.

THE MEDICAL SCHOOL OF THE CATHOLIC UNIVERSITY

Occupies a central position, and is within a short distance of the principal hospitals of the city; it possesses a complete Laboratory for the study of practical and experimental chemistry; the dissecting-room is lighted with gas for the convenience of industrious students; there are class-rooms for private tuition on the premises, and a college for the residence of medical students is specially provided, containing a library of the most approved class-books. Two exhibitions, each of the value of £20, are offered for competition in the ensuing year, viz.: one in the combined subjects of chemistry, physiology, microscopic anatomy, and botany; and one in practical chemistry, materia medica, and medical jurisprudence. A gold medal of the value of £7 is likewise offered in surgery, medicine, and midwifery in the ensuing winter session. The students of the physiological and botanical classes are instructed in the use of the microscope, and how to recognise the various animal and vegetable tissues, and fluids.

Winter Session.

Anatomy and Physiology—Dr Hayden, Dr. R. Cryan, daily (except Saturday) at 12 o'clock.
Practical Anatomy—Dr. R. Cryan, Dr. Hayden, daily (except Saturday) at 1 o'clock.
Dissections—Dr. P. Hayes, Dr. Fennelly, Dr. Laffan, 7 to 7 daily.
Chemistry - Dr. W. K. Sullivan, Mon. Wed. Fri. at 2.
Surgery—Mr. Tyrrell, Mon. Wed. Fri. at 3 o'clock.
Practical Medicine—Dr. R. D. Lyons, Tu. Thur. Sat. at 3.
Midwifery—Dr. Byrne, Tu. Thur. Sat. at 2.

Summer Session.

Materia Medica—Dr. Quinlan. Tu. Wed. Thur. Sat. at 11.
Botany—Dr. Sigerson, Tues. Wed. Thur. Sat. at 11.
Pathology—Dr. R. D. Lyons, Tu. Th. Sat. at 3 o'clock.
Medical Jurisprudence.—Dr. MacSweny, Mon. Wed. Fri. at 12 o'clock, and Sat. at 1 o'clock.

Fee for all Courses, £3, 3s.

THE CITY OF DUBLIN HOSPITAL.

This hospital is situated in Upper Baggot-street, about ten minutes walk from the Royal College of Surgeons and the medical school of Trinity College, and twelve from the Ledwich Schools and School of the Catholic University. Physicians, Surgeons, and Assistant-Physicians are, with three exceptions, either Professors or Demonstrators in the School of the Royal College of Surgeons in Ireland. The hospital contains 104 beds and accommodates about 800 intern patients annually. There are special wards for ophthalmic diseases, on which subject a special course of lectures is delivered by Dr. Jacob, and for diseases of children. A new wing has been lately opened for the reception of fever and other infectious diseases. The "Purser" Studentship of £20 per annum (with apartments) is obtainable by competitive examinations by all students, and a special certificate is granted. The fees for hospital attendance are.—Nine months £8 8s. Six months, £6 6s. Summer 3 months, £3 3s. Perpetual, £21.

Physicians.—Charles Benson, M.D., Professor of the Practice of Medicine, R.C.S.; Thos. E. Beatty, F.K.Q.P., Ex-Professor of Midwifery, R.C.S.
Surgeons.—William Hargrave, M.D.F.R.C.S., Professor of Surgery, R.C.S.; Thomas G. Geoghegan, M.D., Professor of Forensic Medicine, R.C.S.; Jolliffe Tufnell, F.R.C.S., Ex-Professor of Military Surgery, and Examiner in Surgery, R.C.S.; H. G. Croly, F.R.C.S, L.K.Q.C.P.I., Senior Demonstrator of Anatomy, R.C.S.
Ophthalmic Surgeon.—Archibald H. Jacob, M.D., T.C.D., F.R.C.S.
Assistant-Physicians.—J.H. Benson, M.B.T.C.D., L.K.Q.C.P.; D. B. Hewitt, A.B., L.K.Q.C.P.I.
Dental Surgeon.—Francis McClean, Esq., Jun.

THE MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

This hospital is situated about a quarter of an hour's walk from the University, and within a few minutes of the College of Surgeons and the Ledwich Schools of Medicine; affords every facility for the treatment and study of disease. Its salubrious position and long established character call for constant admission to its accident, chronic, fever, surgical, and children's wards, which are thus constantly occupied with cases illustrative of medicine and surgery.

Four prizes will be given at the termination of the Winter Course to the best answerers in their respective classes.

The office of Resident Pupil is open to pupils as well as apprentices.

Physicians.—William Stokes, M.D., and Alfred Hudson, M.D., Dublin, F.K.Q.C.P.I.
Surgeons.—George H. Porter, M.D., T.C.D., F.R.C.S.I.; Maurice H. Collis, M.B., University of Dublin, F.R.C.S.I.; Jas. H. Wharton, A.B., T.C.D., F.R.C.S.I., L.K.Q.C.P.I.; Philip Crampton Smyly, M.D., Dublin; Rawdon Macnamara, F.R.C.S.I.; William Stokes, M.D.

THE ADELAIDE HOSPITAL

Is in Peter-street, next door to the Ledwich School. From the 1st of October, the Physicians and Surgeons will visit the Wards, and give instruction at the bedside, at the advertised hours, and the course of Clinical Lectures will be commenced in the beginning of November, when an Introductory Lecture will be delivered by Dr. Macalister.

Physicians—Henry H. Head, M.D.; James Little, M.D.
Surgeons—Albert J. Walshe, M.D., F.R.C.S.I.; John K. Barton, M.D., F.R.C.S.I.; Benjamin Wells Richardson, F.R.C.S.I.
Assistant-Surgeon — Alexander Macalister, L.K.Q.C.P., L.R.C.S.I., Demonstrator, R.C.S.

ST. VINCENT'S HOSPITAL.

This hospital was established in 1834 by the Sisters of Charity, some of whom had studied the system of the Parisian Hospitals, after which it was modelled. Dr. O'Ferrall was the original medical officer. The word for "*Enfans Malades*" is an interesting feature. The hospital has over a hundred beds constantly full, and each sister has charge of about twelve patients. In connection with it, a Convalescent Home was established two years since at Stillorgan, and the greatest benefit in the way of rapid recoveries and convalescence after acute attacks has followed. These institutions are wholly supported by voluntary contributions. The clinical instruction in medicine and surgery is given by Dr. O'Ferrall, Dr. Quinlan, Dr. Mapother, and Mr. O'Leary, Assistant-Surgeon, and prizes are awarded at the end of the Winter Session.

SIR PATRICK DUN'S HOSPITAL,

Founded on the endowment of Sir Patrick Dun, and for many years receiving nothing but purely medical cases, has been lately reconstituted as a Medico-Chirurgical Hospital. It is in immediate connection with the School of Physic, and its Physicians and Surgeons are all Professors in that school. The University requires nine months' attendance at this hospital from candidates for the M.B.

Physicians—Robert Law, M.D.; John T. Banks, M.D.; Aquilla Smith, M.D.
Surgeons.—Benjamin G. M'Dowel, M.D., M. Ch.; Robert W. Smith, M.D., and M.Ch.; Edward H. Bennett, M.D., M.Ch.

Hospital Fee for twelve months, including nine months' Clinical Lectures:—First year, 12 guineas; second year, 9 guineas; third year, 6 guineas.

THE MATER MISERICORDIÆ HOSPITAL,

Situated in Eccles-street, is a new and handsome building, and, when it is completed, will be one of the finest charitable institutions in Dublin.

Physicians—John Hughes, M.D., Thomas Hayden, M.D.
Surgeons—R. P. O'Reilly, F.R.C.S.I., Francis R. Cruise, M.D., Henry Curran, L.R.C.S., Henry J. Tyrrell, F.R.C.S.

Fees.—Nine months, £8 8s.; six months, £6 6s.; three months, £3 3s.

MERCER'S HOSPITAL

Is situated within a few minutes walk of the Royal College of Surgeons, Ledwich School, Trinity College, and Catholic University School.

Two new wards for the reception of Fever and Contagious

Diseases, are now open, in addition to the previous accommodation of the Hospital.

Terms of Attendance.—Six months, Six Guineas; Nine months, Eight Guineas; Perpetual Pupils. £21.

Physicians.—William Moore, M.D., Thomas P. Mason, M.B., F.R.C.S.I.

Surgeons.—Richard G. Butcher, F.R.C.S.I., M.R.I.A., Edward Ledwich, F.R.C.S.I. Edward S. O'Grady, Ch.M., M.B., John Morgan, A.M., T.C.D.

JERVIS-STREET HOSPITAL.

This Hospital is situated in the neighbourhood of the Carmichael and Catholic University Schools, and in a part of the city not otherwise provided with hospital relief.

Physicians—Stephen M. MacSwiney, M.D.; W. Martin, M.D.

Surgeons—Richard P. O'Reilly, F.R.C.S.; M. H. Stapleton, M.B., F.R.C.S.; J. S. Hughes. M.D., F.R.C.S.; J. K. Forrest, F.R.C.S.; Anthony H. Corley, M.D., Austin Meldon, L.K.Q.C.P.; R. Persse White, F.R.C.S.I.

For further particulars see advertisement.

ROTUNDO LYING-IN HOSPITAL.

This well-known institution is the largest and oldest maternity hospital in the United Kingdom, and the repute in which it is held attracts students from all parts of the world. It accommodates an average of 1500 intern patients, and is under the care of the Master, who is elected every seven years, and two Assistant Masters, who hold these appointments for three years. The mastership is at present held by Dr. Denham, and the assistant masterships by Dr. Speedy and Dr. Beatty. A student entering for the practice of the hospital pays a fee of £10 10s. for six months' practice. During that period he is required to attend at least thirty cases, either within the walls of the hospital or at the homes of patients who may apply for assistance. For this course of study a certificate is given, which is received as a qualification in Midwifery in the public services.

Students are admitted to reside in the hospital, for which they pay a fee of 20 guineas, for six months.

THE COOMBE LYING-IN HOSPITAL.

This hospital divides with the Rotundo, almost the entire of the obstetric practice of Dublin. It is situated in the centre of a district densely populated by the lower orders, and thus affords the amplest opportunities for practice. It accommodates about 600 labour cases within its walls, while those attended as externs amount to nearly double that number. Moreover, the chronic ward for the reception of cases of the diseases of females, gives admission to about eighty patients annually. Its wards are in the charge of Dr Ringland and Dr. Sawyer, as Masters, and Dr. Kidd, as Assistant-master. The fee for attendance is £4 4s. for six months as extern, and £10 10s. as intern pupil. During that period the student attends on a given night in each week, or oftener, if circumstances permit, and takes charge in his turn of any cases which may be admitted to the Labour wards. or may call for his assistance outside. In difficult cases he has the superintendence of the Resident-medical officer, and of the Masters when necessary. An annual examination is held in May and November, at which prizes of considerable amount are awarded, and certificates of good answering granted. Two paid resident Pupil Midwifery Assistantships are obtainable annually by competitive examination, for which all pupils who have obtained their Midwifery Diploma are eligible.

Provincial Colleges of Ireland.

QUEEN'S COLLEGE, BELFAST.

The first Matriculation Examination will commence on the 19th October. There will be additional Matriculation Examinations on the 14th November for those who have not been able to present themselves at the first. Lectures will commence on 1st November. No student can be permitted to enter after the 14th November. Two Junior Scholarships, value £25 each, are awarded to Matriculated Students commencing the first year of their study. The Examination for these will take place immediately after the first Matriculation Examination. Two of similar value to Students of the second year, two to Students of the third year, and two to Students of the fourth year.

For subjects of examination and other information see Queen's College Calendar for 1865. At the termination of the Session, prizes will be awarded for proficiency in the several classes.

The Trustees of the "Charters' Educational Fund" grant annually, for ten years, a sum of £50, for the purpose of establishing an Exhibition in connection with the Belfast School of Medicine. The competitive examination for this Exhibition will be held at the end of the Session, at which all Medical Students can compete.

Anatomy and Physiology—Dr. P. Redfern, daily (ex. Sat.) at 2.
Practical Anatomy—Dr. P Redfern
Chemistry—Dr. T. Andrews, daily (except Sat.) at 3 o'clock.
Practical Chemistry—Dr. T Andrews, Mon. Wed. Fri. at 11.
Materia Medica—Dr. J. S. Reid, Mon Tues. Wed. Thur at 4.
Natural History—Dr. W. Thomson, Mon. Tues. Wed. Thur. Fri. at 1 o'clock.
Natural Philosophy—Mon. Wed. Fri. at 11 o'clock.
Surgery—Dr. A. Gordon, Mon. Tues. Wed. Thur. at 1.
Midwifery—Dr. W. Burden, Mon Tues. Thur. Fri. at 3.
Practice of Medicine—Dr. Cuming, Mon. Tues. Wed. Thur. at 4.
Medical Jurisprudence—Dr. J. F. Hodges, Wed 3; Fri. at 1.

Fees.—Practical Chemistry, £3. Anatomy and Physiology, First Course. £3; subsequent Course, £2. Anatomical Demonstrations and Practical Anatomy, each Course, £3; for subjects each Session 15s. Other Medical Lectures, First Course, £2; each subsequent Course, £1.

BELFAST GENERAL HOSPITAL.

This Institution is the only Hospital for the reception of Injuries and Surgical Diseases in Belfast, and contains 150 beds.

HOSPITAL ATTENDANCE.

Physicians—John Drennen, M.D.; J. W. T. Smith, M.D.; Richard Ross, M.D.; Professor Cuming, M.A., M.D.

Surgeons—Samuel Browne, R.N.; Henry Murney, M.D.; Professor Gordon, M.D.; W. MacCormac, M.A., M.D.

Four pupils are permitted a residence in Hospital. £45 per annum is the charge for board. The appointments are open to all students attending the Hospital, and are given to the most proficient. Assistant Clinical Clerks and Dressers for the Wards and Extern Department are appointed without any additional fee. A competitive Examination will be held on Saturday, 4th November, at ten A.M., to fill up two vacancies for Resident Pupils.

On the 1st November Drs. Drennan and Ross have charge of the Medical, and Drs. Browne and Gordon of the Surgical Wards.

On the 1st day of February, Dr. Smith and Dr. Cuming will take charge of the Medical, and Dr. Murney and Dr. W. MacCormac the Surgical Wards. The Extern Department is visited each morning at 10 o'clock.

A Lecture, introductory to the Course of Clinical Instruction, will be delivered by Dr. Drennan on Tuesday, the 12th of November, at 10 A.M.

Fees for Clinical Instruction, including Hospital Fees.—Winter: First Session, £4 4s.; second, £3 3s.; third, £3 3s.; fourth, and afterwards, £1 1s.; perpetual, £12 12s.

QUEEN'S COLLEGE, CORK.

MEDICAL SCHOLARSHIPS.

First Year.—One to the candidate who shall have most distinguished himself at the Examination for Science Scholarships of the first year in Arts, and one to the candidate who shall have most distinguished himself at the Examination for Literary Scholarships of the first year in Arts. Candidates for these Scholarships shall have previously declared themselves, and have matriculated as Medical Students.

Subjects for the Second Year.—Anatomy and Physiology, Chemistry, General Physics, Zoology and Botany, the French Language.

Subjects for Third Year.—Anatomy and Physiology, Practical Anatomy, Materia Medica, Practical Chemistry.

Subjects for Fourth Year.—Anatomy and Physiology, Practical Anatomy, Therapeutics, Pathology and Morbid Anatomy, Surgery, Midwifery.

Anatomy and Physiology.—Dr. Corbett, daily (ex. Sat.) at 1.
Practical Anatomy.—Dr. J. H. Corbett, Dr. Shinkwin, Dr. H. Jones, daily at 12, 9, and 8 o'clock.

Chemistry.—Dr. J. Blyth, Monday, Wednesday, Friday.
Practical Chemistry.—Dr. J. Blyth, Mon. Tues. Wed. Thur.
Materia Medica.—Dr. Purcell, Dr. O'Leary Tu. Th Sat. at 2.
Geology and Pathology.—Dr. J. R. Green, Mon. Wed. Fri.
Surgery.—Dr. W. Tanner, Tu. Th. Sat. at 3 o'clock.
Midwifery.—Dr J. R. Harvey, Mon. Wed Fri. at 4 o'clock.
Practice of Medicine.—Dr. D. O'Connor, Mon. Wed. Fri. at 3.
Medical Jurisprudence.—Mr. Barry, Friday at 3 o'clock.

The Fees, whether Matriculated or Non-matriculated. for attendance on lectures, are £1 for each course. when attended for the first time and £1 for each re-attendance on the same; except that the fee for Anatomy and Physiology shall be £3 when attended for the first time, and £2 for every subsequent attendance; and that for Practical Anatomy or Practical Chemistry shall be £3 for each attendance.

HOSPITAL ATTENDANCE.

South Charitable Infirmary and County of Cork General Hospital.
Physicians.—W. K. Townsend, M.D., E. R. Townsend, Jun., A.B.M.D.
Surgeons.—W. K. Tanner, M.D., T. Gregg, M.D., T. Curtiss, L.R.C.S.I.

North Charitable Infirmary and City of Cork General Hospital.
Physicians.—E. Finn, A.M., M.D., John Popham, A.M., M.B., P. Goulding, M.D.
Surgeons.—Samuel Hobart, M.D., T. C. Shinkwin, M.D., N. Y. Hobart, M.D.

Fees for six months, £5, 5s., and for twelve months £8 8s.

QUEEN'S COLLEGE, GALWAY.

FACULTY OF MEDICINE.

The College Session.

The College Session is divided into three Terms. The First Term commences October 15, and ends December 23, 1867.

Matriculation.

The Matriculation Examination is held at the commencement of the first Term; but additional Examinations are held before the close of the Term. The last Matriculation Examination is held on the 15th November. Each candidate before being admitted to Examination, must pay a fee of ten shillings, which will be returned to such as fail to pass.

Attendance on Lectures.

All Students shall pay the College Fee, and a moiety of their Class Fees, and enter their names with the Registrar, before they are admitted to the classes of the several Professors. No Student shall have his name replaced on the rolls at the second Term who has not paid the second moiety of his Class Fees. No Student shall be regarded as having kept a Course of Lectures who has not attended two-thirds of the entire number.

Examinations.

A Sessional Examination is held at the close of each Session in the subjects of Lectures. There is also a Supplementary Examination on the same subjects at the commencement of the following Session.

Scholarships.

Eight Junior Scholarships, of the value of £25 each, are awarded to Students pursuing the Course for the Degree of M.D. The Examinations for Junior Scholarships are held at the commencement of the First Term. Junior Scholars are exempted from one moiety of the Class Fees. The College is empowered to award Exhibitions, varying in value from £10 to £18, at the same Examinations as the Scholarships, and to be held upon the same terms.

Students of other Universities.

Any Student of a Queen's College or University, and any Medical Student who shall have pursued part of his Studies under recognized Teachers, on fulfilling such conditions as the Council prescribe, may take corresponding rank in this College.

FEES.—The College Fees for Matriculated Students are 10s. for the first year, and 5s. for subsequent years. The Fees for all Students for attendance on Lectures are £1 for each Course, of one Term, and £2 for each Course of more than one Term, when attended for the first time, and £1 for each re-attendance, except the following:—Anatomy and Physiology is £3 for the first time, and £2 subsequently. Practical Anatomy, or Practical Chemistry is £3. The fees for Honour Courses are £2. Operative Surgery is £3. Fees are payable in two instalments. The first instalment includes the College Fee, and a moiety of the Class Fees, payable at the commencement of the First Term. The second instalment—the remaining moiety of the Class Fees—at the commencement of the Second Term. Scholars are exempted from this latter moiety.

RESIDENCES.—Every Matriculated Student under the age of 21, shall reside with his parent or guardian, or with some relation or friend, or in a Boarding-house, licensed by the President, where he shall be placed under the charge of the Dean of Residences of his creed.

Anatomy and Physiology.—Dr. J. Cleland, daily (ex. Sat.), at 2.
Practical Anatomy and Demonstration.—Dr. Brenton, daily, at 1.
Chemistry.—Dr. Rowney, Mon. Wed Fri. at 12 o'clock.
Practical Chemistry.—Dr. Rowney, Tues. Thur. Sat. at 2.
Materia Medica.—Mr. S. M'Coy, Mon. Wed Fri. at 4.
Botany and Zoology.—Dr. A. Melville, Tues. Thur. Sat. at 11.
Surgery.—Dr. J. V. Brown, Mon. Wed. Fri. at 4 o'clock.
Midwifery.—Dr. R. Doherty, Tues. Thur. Sat. at 3 o'clock.
Medicine.—Dr. Colahan, Mon. Wed. Fri. at 3 o'clock; Mr. S. M'Coy, Tues. Thur. Sat at 4 o'clock.
Medical Jurisprudence.—Mr. S. M'Coy.
Logic.—Dr. T. W. Moffett, Mon. Wed. Fri. at 1 o'clock.

HOSPITAL ATTENDANCE.

The County Galway Infirmary, Town, and Union Hospitals, are in the immediate vicinity of the Queen's College. They contain upwards of 200 patients, and afford every means of obtaining practical knowledge in both Medicine and Surgery.

DAYS AND HOURS OF INTRODUCTORY LECTURES

TO BE DELIVERED AT THE DIFFERENT MEDICAL SCHOOLS IN THE METROPOLIS.

	Days and Hours.	
St. Bartholomew's Hosp. and Med. Coll.	Oct. 1, 5	Dr. Odling.
Charing-cross Hosp. and Med. Coll.	,, 1, 3	Mr. Canton.
St. George's Hospital Medical School	,, 1, 2	Mr. Holmes.
Guy's	,, 1, 2	Mr. A. E. Durham.
King's College Medical Department ...	,, 1, 3	Dr. Miller.
London Hospital Medical College ...	,, 1, 4	Dr. Letheby.
St. Mary's Hospital Medical School ...	,, 1, 8	Dr. Broadbent.
Middlesex Hospital Medical College ...	,, 1, 3	Dr. T. S. Cobbold.
St. Thomas's Hosp. Medical College ...	,, 1, 3	Mr. Solly.
University College Faculty of Medicine	,, 1, 4	Dr. Grailly Hewitt.
Westminster Hospital and Med. School	,, 1, 8	Mr. Teevan.

IN THE PROVINCES.

	Days and Hours.	
Birmingham—Queen's Coll. Med. School	Oct. 1, 3	Mr. O. Pemberton.
Birmingham—Sydenham College ...	,, 2, 3	Mr. W. Bates.
Leeds School of Medicine ...	,, 1, 12	Mr. T. P. Teale.
L'pool Royal Infirmary and School of Med.	,, 1, 3	Mr. A. B. Steele.
Manchester Royal School of Medicine	,, 1, 12	Dr. Thorburn.
Newcastle-upon-Tyne Coll. of Medicine	,, 1, 2	Dr. T. Humble.
Sheffield Medical School	,, 1, 8	Mr. W. Baker.

The Bristol Medical School commences on Tuesday, October 1. There is no Introductory Lecture, but in place of it an Address is given at the close of the Session.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Every MS. should bear the Name and Address of the Sender.

Dr. Hearns.—Owing to issue of our Students' Number we must defer attention to the subject mentioned to our next.

Dr. Johnson.—We will endeavour to ventilate the matter in an early number.

Dr. H.—The alteration has been attended to.

Mr. C.—Your paper is scarcely readable. We must, therefore, trouble you to re-write the same, as in its present form no compositor could make it out.

Dr. R.—Yes, on Tuesday week last.

Medical Officer.—We are surprised at the refusal, and would advise you to put yourself in communication with the chief of the department.

Dr. M. Reading.—The copies were forwarded to the address you gave.

Mr. Macilwain.—Proofs of your last communication shall be forwarded in due course.

"*Interloped*".—Your letter shall, if possible, appear in our next.

R. I. J.—We shall be happy to give you any assistance in our power.

Those Gentlemen who have so kindly forwarded us information and corrections, will please receive our best thanks.

Several Original Papers, Correspondence, Hospital Reports, Notices of Books, and other matter, must unavoidably stand over to our next number.

Original Communications.

ON THE TREATMENT OF PHTHISIS BY CHANGE OF CLIMATE.

By THOMAS MORE MADDEN, M.R.I.A.,

LICENTIATE OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND, MEMBER OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, AUTHOR OF AN ESSAY "ON INSANITY AND THE CRIMINAL RESPONSIBILITY OF THE INSANE," "ON CHANGE OF CLIMATE, A GUIDE FOR TRAVELLERS IN PURSUIT OF HEALTH," "THE SPAS OF GERMANY, FRANCE, AND ITALY," &C.

CONSUMPTION is no longer regarded as an incurable disease, and as this fact is in some degree at least owing to the more extensive and judicious use of change of climate, in the treatment of phthisical cases within the last few years, a short essay on this subject by one who has had extensive personal experience of the various southern climates frequented by pulmonary invalids, may not be devoid of practical interest. The number of consumptive patients, who go abroad from this country in winter in pursuit of health, annually becomes larger, as the facilities for reaching distant southern and oriental climates are increased by rail and steam. And thus a valuable remedy, the use of which was formerly very limited, is now placed at the service of a numerous class of invalids. Some of the winter resorts which are now frequented by consumptive patients are, however, I think, unsuitable climates for such persons. Thus, as I shall presently show, in one of the most fashionable health resorts in the south of France, the weather in winter is as cold and as damp as it is in Dublin; while in another extravagantly lauded winter sanatorium on the Riviera, the patient is exposed to "keen, cool, northerly winds," during a great part of winter. The mistaken opinions entertained respecting the climates of certain health resorts, are chiefly owing to the exaggerated statements made by some local writers. Another source of fallacy about these southern winter resorts, is that they are generally considered only with regard to their temperature, and not, as they should, primarily, be in reference to the comparative humidity or dryness of the atmosphere. It is on this latter circumstance that Sir Dominic Corrigan chiefly founds his "tonic and sedative division of climates," by which, in my work on "Change of Climate," published some years ago, I endeavoured to classify all the health resorts of southern Europe and northern Africa. Those who ignore this division of climates, and depend only on temperature, as some very recent writers on climatology do, seem to forget that climate is something more than temperature, and that in its effects on pulmonary invalids, climate is essentially modified by the geological formation and geographical position of localities, as well as by the moisture, pressure, electrical condition, and temperature of the atmosphere.

THE INFLUENCE OF CLIMATE AS A CAUSE OF PHTHISIS.

The cause of the prevalence of consumption in Great Britain is in great measure attributable to the climate, which in winter and spring is cold and humid, and hence it is that change of climate to a more genial atmosphere in winter and spring, proves so serviceable to consumptive patients. A cold and humid atmosphere, such as that of this country in winter, predisposes to consumption by intervening with the chemical and vital changes effected in the lungs by the process of respiration. The ill effects thus produced, are increased by the rapid abstraction of caloric, by the cold air from the pulmonary surface, and by the depressing influence thereby produced on the nervous system. The climate of these islands is, moreover, one of the most changeable in Europe, and great and sudden variations of temperature are very productive of pulmonary disease.

A cold climate is not, however, a cause of consumption, provided the atmosphere be dry as well as cold, and the inhabitants of some of the coldest climates in the world, enjoy a remarkable exemption from phthisis. At the last meeting of the British Medical Association, a very eminent authority on this subject, Dr. Leared, of London, stated that he had ascertained that in Iceland, where the natives are not only exposed to an intensely cold climate, but, moreover, live under the most unfavourable hygienic conditions imaginable, phthisis is an unknown disease.

Recent writers have attempted to prove the truth of an old assertion that consumption is more prevalent in hot than in cold climates; and the medical statistics of the British army have been quoted in support of this assertion. Without, however, entering at large into this question, which I have elsewhere discussed, I may observe that the British army is chiefly recruited from the worst-fed and worst-cared class of the population of our large towns. These recruits are sent out to the East and West Indies and other hot climates, generally about the age of puberty, and often they have a tendency to consumption at this time. In India and the West Indies the soldiers too frequently indulge in dissipation, and they are obliged to drill and do duty at night as well as in the day-time, and they are thus more or less exposed to the injurious effects of the cold, damp night-air which, in tropical climates, succeeds to the hot, parched atmosphere of the noon-day. We can readily suppose that if any predisposition to consumption exists, it must, under these circumstances, be developed into active disease. It is manifestly unfair, therefore, to parade such cases as proof of the effects of tropical climates in causing tubercular disease of the lungs. Whether consumption be more prevalent in cold than in hot climates is a question which cannot be answered in the present state of medical statistics. But no knowledge is, I think, much better on a subject such as this, than those false impressions which are conveyed by imperfect information.

REMEDIAL EFFECTS OF CHANGE OF CLIMATE IN CASES OF PHTHISIS.

The questions I now propose to consider are, in the first place, the curative influence of change of air in the treatment of consumption; and, secondly, the comparative advantages of some of the principal winter resorts frequented by consumptive patients.

Even a very limited change of climate occasionally succeeds in curing cases of chronic pulmonary disease, especially chronic bronchitis, which have resisted all other treatment. And in cases of phthisis, when the patient's circumstances did not admit of a more complete change of climate, I have seen great benefit follow the invalid's removal from Dublin to Dundrum, Ballybrack, and other places within a few miles of the city. At the present time I have a case of consumption under my care in an advanced stage of the disease, and occurring in a somewhat elderly person, in which the progress of the tubercular disease, which had previously been rapid, seems to be arrested ever since I induced the patient, six weeks ago, to sleep a few miles out of town, although she is yet obliged to follow a very unhealthy occupation in Dublin during the day. In a case so far advanced this amelioration cannot be expected to last long, for, in treating consumption by change of climate, the hope of effecting a cure mainly depends on the duration of the disease before the change is resorted to, and great discredit is often brought on this remedy by its being employed only when the patient is very far advanced in the last stage of phthisis.

In no stage of the disease is the efficacy of this measure so marked as in that cachetic condition which frequently precedes the deposit of tubercles in the lungs. Change of climate is also of great advantage to children who have any hereditary tendency to phthisis, or who are of scrofulous constitution. In such cases a dry, warm, and bracing, or in other words, a *tonic* climate, must be chosen. Amongst these tonic climates are Malaga, Nice, Hyeres, Upper Egypt, and Western Australia. Climates of this class are suited for the majority of consumptive patients who require change of climate.

But there are cases of phthisis in which any of the tonic

winter climates would prove injurious to the patient. If, in a case of consumption, the prominent symptoms are a hard dry cough, with a harsh and dry skin, hurried and short respiration, a quick, weak, and irritable pulse, and if hæmoptysis be a very early symptom of the disease, a *sedative* rather than a tonic climate will be required. In these cases the great desideratum is a warm, slightly humid, and above all, an equable climate—such, for instance, as Rome, Madeira, Pisa, Queenstown, or Torquay.

SEA-VOYAGING IN TREATMENT OF PHTHISIS.

In cases of incipient consumption, and even in some cases of a more advanced stage of the disease, there is no remedy more useful in many cases than a sea voyage to a moderately warm latitude, undertaken at the proper season, and in a well found and commodious sailing vessel. It is often remarkable how soon this produces a sedative effect on the circulation and nervous system of the invalid voyager. The small, quick pulse of a consumptive patient will sometimes become softer and slower after he has been a few days at sea, and I have frequently had occasion to remark the sedative influence of a sea life on the nervous system.

But sea-voyaging can only be used in certain cases and stages of phthisis, as otherwise it will do more harm than good. The following case is an illustration of the danger of over-looking this obvious fact—Mr. C. E., a student in college, after hard study during the winter session, presented symptoms of incipient phthisis for which he sought advice. He had a hard dry cough, his pulse was ninety, there was dullness under the right clavicle, the cardiac sounds were audible over the entire chest, the expiratory murmur was prolonged, and he was losing flesh rapidly. I prescribed the ordinary treatment, recommended him to remain in the country during the summer, and then to go to Malaga about September. He was otherwise advised in the meanwhile, however, and in August he sailed from Liverpool for Melbourne. On the voyage he grew gradually worse, the night sweats became more profuse and debilitating, and all the other symptoms continued to increase until he landed. So conscious was he then of his state, that, hoping to reach home alive, he re-embarked in a homeward bound ship within a fortnight of his arrival in Australia, and died as the vessel was entering the channel.

CHANGE OF AIR IN THE FIRST STAGE OF PHTHISIS.

A tonic winter climate is generally required in the treatment of the first stage of consumption. That is to say, that when the tubercular deposit is confined to a small portion of the pulmonary structure, the tubercles being still small and in a crude condition, the cough and dyspnœa still slight, and the pulse not permanently quickened, great benefit may be hoped for from a change from this cold and humid climate to a warm and dry atmosphere in winter. Such a climate may be found in Upper Egypt, Malaga, Western Australia, or in some parts of the Riviera, between Toulon and Genoa.

CHANGE OF CLIMATE IN THE SECOND STAGE OF PHTHISIS.

In the next stage of tubercular disease of the lungs, a more soothing climate than was required in the first stage is usually indicated. The appearance of the sputa should be taken into consideration before we select a winter climate for a consumptive patient. If the expectoration be sanious, or very purulent, and the pulse much, and permanently, quickened, then a sedative, or warm, equable, maratime climate is needed. But even in this stage of phthisis, more patients may be ordered to such winter resorts as Malaga than can be sent with advantage to the warm, humid, sedative climates of Madeira, Rome, Pisa, or Queenstown.

CHANGE OF CLIMATE IN THE THIRD STAGE OF CONSUMPTION.

When a cavity has formed in the lung, the expediency of change of air must be determined on from a consideration of the symptoms, and not, as some writers assert, merely by the stage of the disease. Thus, one individual with a tubercular cavity in his lungs may be in a better position to derive benefit from change of climate than another patient who is only in the second stage of the malady may be. If the tubercular excavations be small, and the infiltration of miliary tubercles be limited to a small portion of the lung, the existence of what is technically termed the third stage of phthisis should not of itself, and without other reasons, prevent us from giving our patient a chance of prolonging his life by a judicious change of climate. That is, provided always that the patient has sufficient constitutional strength and nervous energy remaining to enable him to undergo the fatigue of the journey to a southern climate ; and if this be the case, speaking from some experience, I am of opinion that change of climate, properly directed, may be of service, even to a patient in the third stage of consumption. In cases of phthisis, which have advanced to the third stage, we can seldom hope that the disease will be cured by change of climate, although occasionally it is so cured even then, and I myself have seen a few cases in which this was apparently the case. But, if this remedy be judiciously employed and persevered in, we may in many cases reasonably hope that change of climate may benefit a patient far advanced in consumption, improve his general health, lessen the pulmonary irritation as it were, bring the disease from an active into a passive state. As a general rule, however, the existence of tubercular cavities in the lungs renders the expediency of change of climate a most difficult question. If the patient's strength be much impaired, if the cavities be large or numerous, if the tubercles be diffused thoughout the lungs, and if profuse expectoration, colliquative perspirations and diarrhœa are accelerating the fatal termination of the disease, then change of climate would be worse than useless ; and, as I have too often seen when residing in southern health resorts, would rather hasten the patient's death than prolong his life.

The winter resorts employed in the treatment of phthisis may be classified, for convenience of description, under five divisions, namely :—the tonic, the sedative, the intermediate, the British, and the Alpine winter climates.

THE TONIC WINTER CLIMATES USED IN THE TREATMENT OF CONSUMPTION.

MALAGA is the best winter resort in the south of Europe for phthisical patients requiring a *tonic* winter climate. Having already written twice at considerable length upon this sanatorium, I shall now limit my observations to a few of the most important features of the climate. The mean annual temperature of Malaga is 65° ; that of winter 55° ; and that of spring 68°. The temperature of winter is the same in Malaga and Algiers, while in spring the mean temperature of Malaga is 2° higher than Agliers, and 14° higher than that of Pau. Rainy days are fewer in Malaga than in any other European winter health resort, the average number of wet days in the year being only twenty-nine. According to my observations, the last winter I resided in Malaga the mean temperature of December was 59°, the lowest temperature 52° and the mean daily variation 2½°. The mean temperature of January was 57°, the lowest temperature 50°, and the mean daily variation 3°. Of the first half of February the mean temperature was 58°, the lowest temperature 50, and the average daily variation 3½°. These observations refer to the day temperature only. The variations of the barometer are as small as those of the thermometer in this favoured climate. Occasionally a few cold, wet, windy, days occur in Malaga in the month of February, and are then severely felt by the invalid visitor, as the houses are built to meet the requirements of a climate in general remarkably warm and dry. The mountains rising behind the town towards the Sierra Nevada, almost completely protect Malaga from northerly winds ; however, a very harsh, dry wind known as the *terral*, coming from the North-west, sometimes sweeps down from the Antequerra hils into Malaga ; and, on the

other hand, a damp, cold, easterly wind, blowing from the sea, is occasionally very trying to pulmonary invalids in Malaga. Neither of these winds occur often or last long in general, and if the invalid remains within doors, he may escape any ill effect while they prevail.

Consumption occasions only 34 per 1000 of the total mortality in Malaga, while in this country the deaths from phthisis amount to 125 per 1000. Other pulmonary diseases, such as bronchitis, pneumonia, and pleurisy, are, however, prevalent in Malaga. The principal drawbacks to Malaga are that the hygienic condition of a great part of the town is very bad, and that the animal food used in Malaga is generally of an inferior quality. But as the invalid visitors in Malaga reside in one or other of the hotels on the Alameda, which is excellently situated in a sanitary and hygienic point of view, they cannot be injured by the bad sewerage of the old quarters of the town. And, with regard to diet, although the animal food is not generally good in Malaga, yet, as fish, poultry, vegetables, and fruits of all descriptions are remarkably abundant and of excellent quality, the invalid resident is in no danger of suffering inconvenience in this important respect.

Nice is, perhaps, the most frequented winter resort visited by British valetudinarians. The facilities for reaching Nice by railway from Paris, the excellent accommodation there provided for invalid visitors, and the beauty of the environs, all combine to render this town a favourite winter resort. The climate of Nice is essentially tonic, being dry, warm, and somewhat exciting. The temperature is equable, the mean daily variations being very small. The mean temperature of winter is 48° and of spring 55°. The prevailing winds are southerly, and the average annual number of wet days is about 70. In spring, however, strong easterly winds predominate, and are a grave drawback to Nice as a place of residence for consumptive patients at this season. Nice is suitable for the winter residence of scrofulous children, and for young persons predisposed to consumption, as well as for a few cases of phthisis in the first stage.

Not far from Nice, on the Riviera, is Mentone, which is now crowded in winter with the fashionable invalid world of London. The preference thus given to this locality in the case of phthisical invalids, appears to me very injudicious. Dr. J. H. Bennet, in the first edition of his "Account of Mentone," says—"to live at Mentone is really like living on shipboard, for, as already stated, the greater part of the inhabited track is a mere ledge at the foot of the mountains that are a few miles inland." And in his "Winter in the South of Europe," Dr. Bennet characterises the atmosphere of this district as "a keen, cold air." This I think is quite sufficient to prove that Mentone cannot be a proper health resort for consumptive invalids. Pulmonary diseases are said to be prevalent among the native population of this district. In winter the prevailing winds are northerly, and are cold and harsh. The mean annual temperature is 60°, the maximum temperature 80° in August, and the minimum temperature 32° in December.

Gibraltar is sometimes spoken of as a health resort for the consumptive, but having several times visited this town I think it is a very unsuitable climate for such patients, the prevailing diseases in Gibraltar are phthisis, bronchitis, and other pulmonary affections. The prevalence of these complaints may, I think, be accounted for by the frequent changes of temperature, the mean daily variation being about 13°, and the strong currents of wind rushing through the narrow Straits of Gibraltar. In the sudden variations of temperature which occur in Gibraltar it resembles the warmer climate of Naples, especially in the spring months.

The climate of Malta is also rendered unsafe for consumptive invalids in winter, by the harsh and stormy north-west winds which often prevail between December and March. The mean temperature of Malta is 63°, the maximum, 90°, and the minimum 46°. Pulmonary maladies, especially phthisis, are prevalent in Malta.

Egypt may be divided into three distinct climates, namely, Upper, Middle, and Lower Egypt. The latter, being a humid, unhealthy, warm climate, is utterly unsuited as a winter resort for consumptive persons. Upper Egypt would be one of the best climates in the world for the majority of phthisical invalids, were it not that the remoteness of the situation, and the great expense and difficulties in the way of an invalid travelling or residing there, oppose almost insufferable obstacles to the general employment of this climate. Upper Egypt, and Nubia, between Assouan and the second cataract, is essentially a tonic climate, being at once dry, warm, equable and exciting in its effects on the animal economy. This climate is best adapted for the treatment of the premonitory and first stages of consumption. The only part of Middle Egypt I have visited is Cairo. In winter the temperature of Cairo is generally warm and genial. The mean temperature of November is 66°, of December 59°; of January, 56° February 59°, and March 64°. The thermometer sometimes, however, falls much lower in January, and there is generally a difference of about 18° between the temperature of the day and night. At this season the prevailing winds are northerly. Rain falls very seldom in Cairo, not oftener, on an average, than from ten to fourteen times in the year. Cairo offers special advantages as a winter residence in cases of consumption, in the pretubercular and first stages of the disease, when a tonic climate is required. This climate is not, I think, suitable for patients advanced in the second, and still less for those in the third, stage of phthisis.

SEDATIVE CLIMATES.

We may next consider the sedative winter climates of Madeira, Rome, and Pisa. The characteristics of the climate of Madeira, are a very equable temperature, combined with a humid and warm atmosphere. The mean temperature of Fuchal is warmer than that of any other winter resort frequented by British invalids; being 59°, which is 1° higher than Cairo, 4° higher than Malaga, 17° higher than Pau, 11° higher than Rome, 13° higher than Pisa, and 15° higher than Queenstown or Penzance. In spring the mean temperature of Madeira is only 52°, which is 11° under that of Cairo, 4° under Algiers, 8° higher than Pau, 5° higher than either Rome or Pisa, 13° higher than Penzance, and 12° higher than Queenstown. It is not the mere warmth of the atmosphere which distinguishes the climate of Madeira, but it is more especially the steadiness of the temperature, and the remarkable exemption from those sudden and violent atmospheric changes which are so injurious to pulmonary invalids in winter in other countries. In spring the climate of Madeira is less advantageous in this respect than in the preceding season. In winter, however, I know no climate which is so well adapted for consumptive patients who require a sedative atmosphere; but this class of patients is comparatively small. It should be remembered that Madeira is upwards of six hundred miles from the nearest part of Europe; and that in the event of sudden illness the foreign invalid is there beyond the reach of any prompt communication, or means of returning home. Moreover, the results of the trial of the climate of Madeira in the case of the patients sent out to winter there from the Brompton Hospital, were not very favourable. In November, 1865, twenty consumptive patients, selected by the medical officers of the hospital, were sent out to Madeira; of these, five left England in the first stage of the disease, four in the second, and seven in the third stage. In two cases the chest symptoms improved; in twelve they remained stationary, and in five they were reported to have advanced. In their general health two out of the twenty returned much improved, seven were slightly improved, four were not so well, and one died rather suddenly in Madeira from rupture of a blood vessel. Four patients increased in weight during their absence, thirteen lost weight, and two experienced no change in this respect.

(To be continued.)

NOTES ON AN INSTANCE OF CRANIAL DEFORMITY IN A DOMESTIC CAT,

WITH REMARKS ON ITS PROBABLE ORIGIN.

By ALEXANDER MACALISTER, L.R.C.S., L.K.Q.C.P.,

DEMONSTRATOR OF ANATOMY ROYAL COLLEGE OF SURGEONS IRELAND, SURGEON TO THE ADELAIDE HOSPITAL, ETC.

A SINGULAR anatomical interest is attached to the study of the occasional variations in the development of any organ or class of organs in the animal economy, especially when we consider the obscurity which surrounds and shrouds the producing causes of these abnormalties. Although much has been written on almost every department of the subject of teratology, especially upon that branch of it which relates to anomalous conformations of the skull, yet in the present state of embryological science, any new fact or observation may be of value, consequently I have thought that the details of structure of a few cranial irregularities in lower animals might be of some interest. One of my pupils recently transmitted to me a young kitten, whose head was the subject of that species of monstrosity which we may call semijaniceps. The animal had been born alive, but had only survived two hours, dying in an exhausted condition. Although quite fresh its body was miserably thin and shrivelled, and weighed less by one-third than an ordinary kitten of the same age and length. It was a male, and ossification had proceeded in its bones as far as usually found in mature kittens. Its limbs were quite regular in size and arrangement; its heart, aorta, and carotid vessels were normal; the larynx was single, and the hyoid bone merely a little flattened and wider than usual. The head, which was covered with a close grey fur, was single posteriorly, but rapidly increased in width to the front extremity, where it finally divided into two anterior segments or faces, which formed with each other an angle of 40°. On the sides of the head posterior to the level of the division, there was but one pair of ears, and the external side of each face presented a normal lateral eye as usual ancyloblepharic, and which, on examination, presented the remains of a membrana pupillaris. In the mesial line, at the point of divergence of the lateral faces, there existed a central meso-orbit, guarded by a circular fold of integument containing muscular fibres, forming an imperfect kind of sphincter. This cavity having been opened, an irregular, nearly globular fibrous sac, destitute of a cornea or iris, was exposed, containing a vitreous humour, and surrounded by fibrous bands, but with no optic nerve or system of distinct muscles in any wise resembling a typical orbit. This cyclopean orb was evidently the result of the fusion of the two lateral eyes, which were contiguous, and although in size it equalled either of the single eyes, yet its organization was extremely imperfect. Between the meso-orbit and the lateral eyes, on each side, a separate nasal cavity was perfectly developed and quite separate for its whole extent from its fellow. Each of these communicated with the subjacent mouth cavity, by means of a longitudinal central cleft in the entire extent of the palate into which the lower edge of the septum narium projected. There were two parabolic alveolar arches separated by a median sulcus, and each enclosing a palatine surface which was rugous, and which along its borders exhibited a row of teeth in the follicular stage of development. A double row of minute bristles or "whiskers" appeared at the extremity of each nose. The upper lip on each face was simply cleft, and the lower jaw was single and simple, with but one alveolar arch, but the centre of the symphysis menti was united to the middle of the interval between the two superior maxillaries, by a mesial vertical bony element, covered externally with mucous membrane. Thus, on depressing the lower jaw, there were two mouths apparently quite separate, each bounded above by a palatine and superior maxillary arch of its own, below by a single ramus of the mandible, and mesially by the vertical inter-maxillary process. Within, however, the cavity of the mouth was single, and showed on its floor, the tongue, single and simple at its root, but separate and diverging for its anterior third, ending in two apices, each of which corresponded to the centre of the mouth orifice of its own side.

In the dissection of the soft parts of this specimen, I noticed the following peculiarities:—None of the superficial facial muscles could be distinctly seen, except a few fibres of the orbicularis palpebrarum. The occipito frontalis was forked anteriorly, corresponding to the condition of the head. The masticatory muscles were not remarkable for any varieties of arrangement on the outer side of each head, but no muscles existed on the inner maxillary bones, and I saw no trace of muscular fibres attached to the median bar. The salivary glands were likewise all to the external side of each head. All the muscles beneath the lower jaw were single, as was the pharyngeal cavity, opening into the front of which were two sets of posterior nares, and but one isthmus faucium. When the dissection was carried down to the bones, the appearances observed were—that the occipital bone was single, simple, and constructed of its four elements—a basi-occipital, two ex-occipitals, and a supra-occipital. From the apex of the latter a single sagittal suture started, and continued forwards for one-fourth the length of the parietal bones, and then bifurcated, each of the continued lines of suture passed forwards diverging and ended at the coronal suture. These two continuations of the sagittal suture were separated by a triangular, or rather lozenge-shaped intercalary bone, which caused a considerable separation between the anterior extremities of the two parietals. There were four frontal bones, of which the outer were the largest, the two central being very partially and slightly connected, although evidently developed from separate centres.

There were two pair of nasal bones, two pair of pre-maxillaries and of maxillaries, two lateral malars, and a single obscure central malar bone, the confused remains of the two adjacent bones, two pair of palates, two of lacrymals, and inferior turbinated bones. On attempting to dissect the brain, I found that its substance was too soft for minute inspection, and I could only determine that the anterior lobes were doubled, and that there were double olfactory lobes, but that the optic portion was not double, and hence the cyclopean eye had no nerve.

On subjecting the bones to a slight maceration in water, to remove any superfluous animal matter, they separated with facility, and enabled me to examine each element by itself. The supra-occipital was ossified from a group of four centres, all of which had united, and was scutiform in shape. In the former respect it differed from the descriptions of its ossification given by Meckel, as he describes it as being developed from eight centres. Beelard and Cloquet, on the contrary, have upheld the opinion that its development is usually from four central ossific points, and the present instance at least bears out their observations. The parietals are each, as usual, developed from a single ossific nucleus, which is a little farther out than usual from the centre of the bone. They are connected together behind for about one-fourth, and form, with the supra-occipital, a small posterior fontanelle. Internally each presents a small ridge as the rudiment of the ossified tentorium.

The inter-parietal bone was somewhat lozenge-shaped in outline, with two long and two short sides, the longest borders corresponding to the parietals, while the shorter sides and the obtuse angle was placed in front between the frontals. It is convex dorsally, concave downwards, and apparently was developed from a single central ossific nucleus. It is thin a little to the right of the centre, but thickens nearer the border, and close to the right lateral angle is a small thickening, which may have been a nearly suppressed second point of ossification, as here the bony fibres do not radiate as evenly as in the other circumferential parts of the bone. This bone, from its situation, is evidently the connecting-link between the single and double portions of the skull, and in nature it may be one of three elements—an inter-parietal segment of the posterior part of the head, in which case it would still belong to the single series; or it may be an intercalary fontanelle bone; or it

might be the representative of two fused parietal bones, the contiguous ones of the coalescing semicrania. In favour of the first hypothesis, we have the small size of the bone, it being little more than half the size of each of the parietals proper. The presence of but a single ossific centre, and the fact that no other part of the parietal segment of the skull shows a tendency to duality. In favour of the third is the possibility that the little thickening to the right might be a suppressed second nucleus, an idea which microscopic examination fails to bear out. Its situation is very different from that of the inter-parietal bone which exists normally in the skulls of the rodentia and marsupialia, and different from the position of the inter-parietal, which often exists in the adult skulls of the common domestic cat, a specimen of which is before me at present as I write. Here the inter-parietal is situated at the upper part of the squama occipitis, of which, indeed, it seems a detached portion. The same is its position in rodentia, and when such a bone occurs in man, it is similarly situated in the form of the epactal bone, called by Tschudi the os incæ, as he describes it as peculiar to the skulls of some Peruvian tribes. These considerations lead us to the second hypothesis, that this bone is an intercalary segment or fontanelle bone, filling the vacuity in the centre of the cranium, and not referable to any part of the ordinary cranium.

Of the four frontal bones, the external are the largest, and each possessed a double ossific centre. The inner pair are perfect, and have small orbital plates, each forming one third of the roof of the meso-orbit, the nasal sulcus of each of these is equal to that on the lateral frontal. The temporal bones are single on each side, and perfectly natural. The lower jaw is as usual a hollow shell containing the germs of the teeth, and exhibiting internally a groove for the continuation of the Meckelian cartilage. The lateral molars of each side are large and perfect. Of the component parts of the base of the skull, the exoccipitals, basiocipital, basisphenoids, and alisphenoids, are single and perfectly normal, the presphenoids, however, are double, and all anterior to these bones partake in the duality.

But the most remarkable of all the bones composing the facial part, is the curved mesial bone which extended like an isthmus between the lower surface of the inner malar bones and the symphysis of the lower jaw. This bone is thick and curved with its conversity forwards, beaked above where it joined the malar and obtuse below, presenting laterally on each side a row of alveoli occupied by teeth in the follicular stage of development, three sockets occupy the right side and four the left, the teeth nearest the malar extremity were molars, those at the mandibular end being incisors ; posteriorly this bone exhibited a trace of a median fissure and in front, along its convexity, the same appearance was obvious, bordered by two narrow sulci which extend one-fourth into the thickness of the bone. This segment, I would regard as a representative of two coalesced mandibular rami, which taken together with the lateral branches would make a single lower jaw for each face.

There are many reasons both for and against this idea, but its connexion with the symphysis, its alveoli on each side, and the order of their occurrence, the incisors agreeing with those of the lower jaw and the molar being placed at the upper end, its articulation external to the maxillary arch, its apparent duality, and its lateral grooves which look like the sulci for Meckelian cartilages, all these tend to confirm the idea that the bone is made of a pair of coalesced mandibular rami. Of the other facial bones very little need be said, the inner superior maxillaries are smaller than the outer, and their infra-orbital foramina are very small and displaced, being not quite one-third the size of the holes in the other or outer bones. The inner malars coalesce to form a small median segment like an hour-glass in shape, continued backwards for a short distance, but finally terminating in a membranous prolongation which unites it with the presphenoid, this median malar forms the inferior wall of the meso-orbit, so that anomalous cavity is bounded above by the inner borders of the two inner frontal bones below by the coalesced malars, and a membrance behind them, laterally by the superior maxillary and presphenoid of each side.

Anomalies of a somewhat similar nature have been before described, one is mentioned by Vrolik (Cyclop. of Anatomy and Physiology, vol. iv., p. 971), but no particulars are recorded with regard to it, and there is no central mandibular segment referred to in that instance. It belongs to the class of monsters with excess of parts, and to the order of those showing a partial lateral symmetrical duplicity. I have called the species semijaniceps as it comes nearer to that form of deformity than to any other.

In our search after the probable origin of this monster, it will be necessary to glance at the mode of development of the normal vertebrate skull, so as to determine what embryonic condition could produce the duality. We find that the parts of the skull may be divided into two series firstly—those developed with a primary cartilaginous stage and secondly—those first developed in a membranous and not a cartilaginous condition.

Now, the first stage of the development of the head is the elevation of the proximal end of the notochord, and its being surrounded by a thick blastema which becomes a cartilaginous plate in the course of growth, this plate is pierced by the anterior end of the chord, and subsequently becomes the base of the posterior fossa of the skull. Above and in front of the basilar plate, the dorsal laminæ close to form the cerebral vesicles anterior, middle, and posterior, which are at first in the same plane, but soon become bent, the middle on the posterior, and the anterior on the middle. At the meso-cephalic bend the basal cartilage plate terminates, corresponding to the locality where subsequently the basisphenoid bone exists. Here the anterior extremity of the notochord itself stops, and the front of the plate is protruded in the form of two processes called " Schädelbalken" or lateral cranial trabecula of Rathke, these processes first diverge, and leave a fossa for the hypophysis or pituitary body, then converging, end by uniting mesially in the formation of a plate, called by Huxley, the ethmo-presphenoidal lamina, and turning up anteriorly project into the frontal wall. Subsequently the lateral trabecula unite below the pituitary body, and thus close the cranial basis.

The notochord of the base of the skull shows no vertebral segmentation like that of the spinal chorda dorsalis, although it is directly continuous into the basilar process from the summit of the odontoid process.—(H. Müller, *Ueber der Vorkommen von Chordaresten, Zeitschrift fur Rat. Medic., series* 3, *vol.* 2.)

The front of the anterior cerebral vesicle projecting becomes continued forwards into a frontal process dividing at its lower and mesial border into three lobes, a middle or intermaxillary, and two lateral or nasal, between these on each side is the space afterwards formed into the nostril, from near the base of the primary frontal process, two rib-like prolongations, one on each side project inwards towards the mesial line, these are the maxillary processes, and they afterwards coalescing with the angles of the mesial intermaxillary lobe complete the arch of the upper jaw. Still lower five thin slips on each side pass inwards, separated from each other by a minute transverse slit communicating with the pharyngeal cavity, these are the visceral arches, and the fissures are the branchial slits so well described by Professor Allen Thomson. In the first of these is a delicate rod of cartilage starting from near the base of the meso-cephalic flexure behind the pituitary space, and extending forwards to the mesial line, this rod after sending forwards a palatine process itself divides into two parts at an early period a short proximal at the base of the skull, and the long distal which makes the major part of the arch, the former becomes rapidly developed into the incus of mammals or into the quadrate bone of the bird and reptile, and the latter organ segmenting, develops from its immediate proximal extremity the malleus in mammals or the condyloid part, or os articulare of the jaw ramus of the bird, while the slender rod-like distal part remains as the cartilage of Meckel around which the mandible becomes developed, the connecting link between it and

its proximal portion being lost in the processus gracilis mallei.* Of the other visceral arches we have the second remaining, as the hyoid bone, but all the others are obliterated in the adult.

Now, applying this knowledge to the individual before us, we see that all the parts developed from the cartilaginous basal plate remain single, as also do the posterior and middle cerebral vesicles, but the portions derived from the cranial trabecula are all double, as also is the anterior cerebral vesicle, and the maxillary processes derived from it; the second visceral arch is likewise undoubtedly single, but if we recognise the middle vertical intermaxillary process as a second pair of mandibular rami, then we would have reason to believe that there was a double series of the proximal visceral arch. It is certainly contrary to that idea that the mesial segment springs from the base of the skull *in front* of the trabecula, but I can suggest no other probable value for this segment.

Hospital Report.

SPECIAL REPORT ON THE TREATMENT OF UNUNITED FRACTURES.

NO VI.†

Professor BIGELOW'S Cases continued.

We have devoted a considerable amount of space to the narration of Professor Bigelow's cases, because, apart from the question of novelty, which is, in fact, secondary, they show a very large amount of success and very fully illustrate his views respecting reproduction of bone from the periosteum. Out of the eleven cases we have detailed, ten were completely successful, the patients having been completely relieved of their infirmity. In one case the bone was the femur, in one the radius, in the remaining nine the humerus. The unsuccessful case was that of a humerus. The accident was a compound fracture, and amputation was obliged to be performed. Softening of the bone had proceeded to a considerable extent.

Among the points worthy of particular notice, we may draw attention to the various modes of producing union which had been tried and failed in most of the cases, and to the circumstance that the operation when unavailing at first was afterwards repeated with a curative result. Though we can scarcely pronounce the operation to be dangerous in face of these histories, it is undoubtedly one of a formidable kind, and the patient should be carefully prepared for it. The patient should also afterwards be supported by appropriate nutriment. The various accidents likely to occur and their treatment are illustrated in the cases already published. As already remarked, the point of greatest importance is the reproduction of bone by the periosteum, and the engagement of that function as a remedial agency. Professor Bigelow is so convinced by his successes, that he has endeavoured to carry out the principle in other forms. Thus, he transplanted some periosteum from the forehead of a patient for the purpose of forming a new nose. No new bone formed in this case, and necrosis of the exposed skull took place. This result will probably deter from "repetition of this procedure." On the other hand, the same surgeon relates a case in which, after excision of the elbow joint, the condyles of the humerus were reproduced in sufficient perfection for to serve as points of insertion for the muscles. The case is so interesting that we add here an abbreviated account of it.

CASE OF PERIOSTEAL REPRODUCTION OF THE CONDYLES OF THE HUMERUS AFTER EXCISION OF THE ELBOW JOINT.

September 14th, 1857.—O. P. F., aged 29, married, clerk, is a light-haired, unhealthy-looking man. His family are liable to scrofulous affections. Five years ago, while at work hoisting goods, he struck his right elbow a violent blow, causing great pain. The elbow swelled, and he was laid up a fortnight. Since that time, whenever he struck this joint, it would swell up in a similar manner. Last July, a fistulous opening appeared a little outside of the olecranon, and a week or two later a second one broke about two inches below the first. These discharge a thin, purulent fluid. A probe passes under the skin from one opening to the other. No diseased bone can be detected.

From this date until March 27th, 1858, various sinuses formed and were laid open.

March 27th.—Ether having been administered, an incision was made over the olecranon, and in the bone a cavity with carious walls, the size of an almond, was discovered. The diseased parts were removed by the gouge.

28th.—Very little pain. Doing well.

April 21st.—Abscesses continue to form.

June 19th.—Patient again etherized. Joint opened by a semicircular incision, and the ulnar nerve sought and turned aside. The ends of all the bones were found to be much diseased, and about an inch of the ulna and an inch of the humerus were removed. The head of the radius was also excised. But little blood was lost. No arteries tied. The periosteum being firmly attached to the coral-like surface of the bone, was torn out from the inequalities with strong forceps. Wound brought together by sutures. Flaps riddled by old fistulous openings. Arm placed on an angular splint, with water dressing. Evening.—Very little pain. Skin warm. Pulse 100. No hæmorrhage.

22nd.—Edge of wound looks sloughy. Stitches removed. Patient comfortable.

26th.—Pulse good. General condition as good as before operation. Edges of wound have opened and sloughed. Sinuses clean. No pain. Porter.

August 17th.—Wounds closing slowly. Discharge much diminished. Appetite good. Walks out every day.

22nd.—Wounds flabby. No dead bone felt. Adhesive straps.

September 5th.—General health is very good. Ulcers have contracted somewhat. Patient advised to go into the country, and is discharged.

November 11th, 1858.—Since leaving the hospital has been in the country. Has had more or less cough. Looks as well as when last seen. About a month after his discharge, an abscess opened, two inches below head of radius. Now, integument around elbow is red and inflamed. There are five fistulous openings which connect with one another and centre in a cavity formed by the removal of the bones. No dead bone can be felt. The discharge is very slight. No pain. Still keeps on the angular splint. Has made up his mind to have the arm off, and enters for the purpose of operation. House diet. Ale. Poultice.

16th.—Has more or less cough. Cod-liver oil, ℥ ij., thrice daily.

20th.—Operation. Patient was etherized, and the arm amputated just above the elbow.

February 28th, 1859.—Discharged, well.

It has lately been ascertained that this patient, who manifested indications of tubercular disease of left lung before his arm was removed, died of phthisis about December 1st, 1859, the disease not having been arrested by the amputation.

Nothwithstanding the unfortunate termination of this case it certainly does, to a large extent, support the position of the distinguished surgeon who treated it, and who considers as very interesting the following two points:—

1st. The reproduction of the condyles of the humerus by the periosteum, which was torn from the interstices of the surface of both the original condyles. The horns which were reproduced for the insertion of the extensors and supinators and of the flexors are conical processes, each somewhat more than half an inch in length, and regularly curved forwards and inwards.

* The processus gracilis is sometimes, and perhaps more truthfully, considered as a part of the second visceral arch.

† Gentlemen who may be willing to furnish reports of cases of ununited fracture to be included in this special report, will oblige by forwarding them immediately to the Editor of the Hospital Report Department, 20, King William-street, Strand, W.C.

2nd. While the elbow is a most favourable joint for resection in cases of recent injury and in healthy subjects, yet when this articulation which is so near the centre of the circulation, and which should therefore be well nourished, and prompt to take on the reparative process, becomes carious from disease, it implies a general feebleness of constitution, which calls rather for amputation than excision.

THE BRITISH ASSOCIATION.

THE MEETING AT DUNDEE.

THE President having finished his introductory address on the previous day, the sections met on Thursday the 5th inst., at eleven o'clock. Section E (Geography and Ethnology) met in the new hall of the Albert Institution, and was most largely attended. Section D (Biology) was subdivided into the two departments of "Zoology and Botany," and "Anatomy and Physiology," all the others met in aggregate. Several meetings were held by the members of the Anthropological Society in consequence of a resolution of the Association to suspend for the year the department of Anthropology. At the one held on Wednesday evening, it was announced by Mr. Harding that the Association had withdrawn the department accorded to the Society last year. Great indignation and disappointment was felt at the result, and at a third meeting, held on Thursday, it was resolved to hold a conference of anthropologists in Dundee during the meeting of the Association; the first meeting being appointed to be held on Friday after noon. We can only give an epitome of the subjects brought forward in the different sections, in some instances simply naming them, as our space will not allow of more, but chiefly fixing on those we consider most interesting to our readers.

Professor Sir W. Thompson presided in Section A (Mathematics). The report of the Lunar Committee was read, which detailed the proceedings of the committee, and the results of the investigations of Mr. W. R. Bist in regard to the mapping of the moon, and the changes in the crater linne. Papers were read by Mr. Glaisher, Mr. J. C. Maxwell, and Mr. Balfour Stewart.

Section B (Chemical Science) was presided over by Professor Anderson, Glasgow University. He alluded to the various attempts which had been made to substitute another for the atomic theory of Dalton. These attempts had resulted in nothing better than the burdening of the science with a cumbersome nomenclature, but it was felt that the Dalton theory must be abandoned, and some kind of molecular theory adopted in its place. The learned Professor went on to suggest the formation of a committee to consider how far an uniform system of chemical symbols might be brought into use. He proceeded to insist on the necessity of introducing chemistry and anatomy into juvenile education, and the desirability of adding them to the curriculum of arts in all the universities.

Mr. Spiller read a paper on the decay of stone, chiefly in reference to Westminster Palace, which provoked a discussion some approving, and others doubting the fitness of Mr. Spiller's process.

In Section C (Geology) Mr. Geikie presided, and opened the business by an address on the igneous rocks, and traces of volcanic action in the British Islands. Several papers were read, and accounts given, which elicited varied and opposite remarks; and the Secretary read a preliminary report of the committee for the exploration of the plant beds of North Greenland.

The proceedings in Section D (Biology) were opened by the President, Professor Sharpey. The section was subdivided, and various papers were read in the first department of Zoology and Botany. In the second department (Anatomy and Physiology), the first and most important paper was one by Professor Bennett of Edinburgh, giving a description of some new investigations to determine the amount of bile secreted by the liver, and how far this is influenced by mercurials. Professor Bennett described four series of experiments made upon a dog; but, except in so far as these experiments showed that the quantity of bile secreted was very variable, and that mercurials do not influence the secretion, they had no result. Professor Christison of Edinburgh, in supporting the resolution that the section recommend the Association to grant a small sum to enable the body of physiologists who have been engaged in making these experiments to continue their labours, said that he had good hopes of useful results from the part of the inquiry instituted to ascertain the amount of bile secreted by the liver, but thought that mercury was too complex a medicine and too variable in its effects to be a good substance to begin the experiment with. He suggested that some simple substance should be used.

The next section, E (Geography and Ethnology), was presided over by Sir Samuel Baker who, in opening the proceedings, delivered a highly interesting address, from which we make the following quotation. After referring to the important geographical explorations which have been made, principally of late years, in every part of the world, he remarks—No striking geographical feat has been performed by England during the present year, but the anxiety not only of geographers, but of Englishmen of all classes, is painfully keen upon a subject of universal interest—the reported death of Dr. Livingstone. This happened, as is alleged, about August, 1866. We have, therefore, been twelve months without further tidings. There are some persons, among others my highly honoured and much-loved friend, Sir Roderick Murchison, who still cling to the hope that Livingstone is still alive, and that the story of the Johanna men is false, and merely a lame excuse for the desertion of their master. The fate of Livingstone, our common friend, of whom we are all justly proud, is so intensely interesting, that I may be excused for expressing my gloomy opinion. Those who still hope cling to the fact that the Johanna men are renowned as liars, and that they have trumped up a story to excuse their return. It is this very fact of their power of consummate lying that convinces me of the substantial truth of their statement. Natives are scientific liars; they do not lie absurdly like Europeans, but they concoct their falsehoods with such forethought that the lie itself is an example of profound skill. No native that I have ever seen would commit himself to so inartistic a lie as to declare to be dead a man who is still alive, and who would become a witness at a future time against him. Should natives intend to desert their master, they invariably plead excuses that cannot be falsified—such as sickness or pretended lameness, that incapacitates them from marching; but the hardihood of the Johanna men in committing themselves by the confession of their cowardice is a surprising instance of veracity that could only have been prompted by the urgency of the calamity. To confess the death of a master is the extreme of moral courage, as a native would dread the suspicion that might fall upon him as the murderer. Therefore, the story of poor Livingstone's murder, although differing in details as described to various people by Moosa, I thoroughly believe to be substantially correct; and this belief, I regret to say, is shared by Dr. Kirk, our vice-consul at Zanzibar, who was Livingstone's former companion on the expedition to the Nyassa. With this sad conviction that Livingstone has passed away for ever, and that his bones now lie beneath that fatal soil of Africa, which has been his glorious stage, I can only as a fellow-traveller in the rough path of African research exclaim, "Peace to his memory! honour to those remains that moulder in the dust! a sacrifice to philanthropy in that distant and hopeless field, where no hand of friendship is spurned, and where a murderous stab is the reward for Christian enterprise!" And now before I close this address I must refer with pride and satisfaction to the vigour and alacrity that have been exhibited not only by the Royal Geographical Society, at the instigation of our sterling President, Sir Roderick Murchison, but also by Her Majesty's Government in despatching, without a moment's unnecessary delay, an expedition to Eastern Africa to investigate the fate of Livingstone. Should he be no more, the arrival of an armed expedition in his search will be a lesson to the savage tribes that no Englishman can disappear without an inquiry into the cause, and good service will be done to geography by the party under Mr. Young, who, provided with a steel boat, will be able to decide whether the Nyassa is fed by a river from the north. The most interesting African problem yet remains to be solved. Within the last few years we have determined the great reservoirs of the Nile, and we have proved that the river, hitherto so mysterious, is the offspring of two great causes, the vast equatorial reservoirs—the Victoria and Albert lakes, and the effect of the sudden rains of Abyssinia, that in July, August, and September cause the inundation in Lower Egypt. That portion of the question I shall shortly publish as the "Nile Tributaries of Abyssinia." But, although the mystery of ages is dissolved, much remains to be explored. We know but a portion of those immense reservoirs, and geographers will not remain content with the bare fact that the Nile issues from those lakes; but England that has untied

the knot most gather in the extremity of the line. The death of Livingstone is a fearful drag upon the wheel of African exploration. There are many as brave, many as adventurous, but there are few who combine the qualifications of patience and endurance that are so sorely needed in that must difficult of all thorny paths—African research. Still we must not despair. We have of late years acquired an ally that is the grand supporter of geographical exploration; a supporter that assists us through what were closed before the providential aid appeared—those swamps whose fatal malaria slew with infernal certainty the brave and daring explorers of former times. Quinine is the guide and faithful escort of the traveller. Armed with this cuirass, we can penetrate through countries hitherto impassible. Next to Providence, there is a support to which an English traveller clings when far, far away from civilization, in countries unknown and trackless. He may be in misery and helpless—he may have lost all hope of return, and sickness may have stricken him to the margin of his grave; but as his last thoughts wander towards all those left behind, and he weighs the fatal end against the results of his missions, of one thing he feels certain, his Government may ignore him, friends may forget him, but the Royal Geographical Society with Murchison at the head will never forsake him; if dead, he will be sought for; and should he return alive, their approbation of his labour will be his great reward. Confident in this support, the hardy pioneers of Great Britain will flock to the thinned ranks of the explorers. Speke lies buried in his native village church—Livingstone, we fear, lies far away; but the monument we raise to these brave men will be the starting point for others who may equal their great deeds. And should the traveller fall in the noble task, and die in a lonely and distant land, if no friendly voice is near to bid farewell, he still shall have a consolation—in the last hour a spirit will whisper those words of comfort to his soul, "England expects that every man will do his duty!"

Sir R. MURCHISON, in moving a vote of thanks to Sir Samuel Baker for his address, said there was only one point in it with which he did not concur. He still clung to the hope that Livingstone might be alive. He would not enter into that subject now, because his friends had asked him to-morrow to give his reasons for believing in the possibility—he did not say the great probability—of his being still alive.

Papers were read by Lieutenant Oliver, R.A., and Captain Maury. The latter gentleman referred to the equatorial cloud ring, stating that to determine its motions and their effects, is one of the most interesting and suggestive meteorological problems of the day. He spoke also of the late Maximilian, Emperor of Mexico, and stated that it was he who planned, and equipped, and sent forth the expedition of the Novara, and as well, gave his influence to the attempt to solve the the problem he had referred to.

An address was delivered by Mr. Grant Duff, on opening the Section of Economic Science and Statistics, in which he enforced the necessity of popularizing Economic Science. Professor Leone Levi read the Report of the Committee on Uniformity of Weights and Measures; and Sir J. Bowring and Mr. J. Oldham read papers on Productive Labour in Prison, which led to a variety of remarks on the subject.

The enrolment of members still continues and had reached 2405, being 102 above the number at Nottingham last year. The attendance is constituted as follows:—Old life members, 167; new ditto, 31; old annual members, 189; new ditto, 115; associates, 1143; ladies, 764; foreigners, 7. The amount of money received is £2526, as compared with £2469 taken at Nottingham.

In the afternoon the freedom of the town of Dundee was conferred on the Duke of Buccleuch, President of the British Association, and on Sir Roderick Murchison, Sir Charles Lyell, and Sir William Armstrong, the presidents respectively of 1846, 1863, and 1864. The presentation was made in the Town-hall by Provost Hay, who prefaced his address to the Duke of Buccleuch by a brief historical statement regarding the town and corporation. In conclusion he said—Although the times were changed the people still held in respect their old nobility, and on no one could they more worthily confer the highest honour they had to bestow than on the representative of the noble house of Buccleuch, who was distinguished alike for his public service and for his private worth, and who, he trusted, would be long spared to his country, a patron of science, a wise, able, and judicious statesman, and a patriotic and kind-hearted nobleman.

The Duke of BUCCLEUCH, in reply, said he would not pretend that he was insensible to the good opinion of his fellow-countrymen. From his earliest youth it had been put before him that from him to whom much was given much would be required, and he had done his best to discharge the duties and fulfil the requirements of his position. It was with great pleasure that he now found himself brought into close connexion with this ancient town, with which he had ancestral family ties, and he considered it a high honour that at a meeting of the British Association in this town he should be chosen as president. He could not look on the thriving community of Dundee without a feeling of pride and astonishment, and while he expressed the hope that it might long continue to flourish, he would venture, although at the moment the youngest burgess of the town, to express the hope that it would never forget its grand old motto, and, while receiving the gift of God in a blessing bestowed on its labours, would never forget whence these blessing flowed.

Provost HAY then, addressing Sir Roderick Murchison, Sir Charles Lyell, and Sir William Armstrong, stated the grounds on which Dundee ought to welcome the presence of men of science. While in 1831, he said, we had a population of only 45,000, Dundee had by the Census in 1861 about 96,000; and at the present time, such had been the rapidity of the increase, there is, by the most reasonable computation, between 110,000 and 120,000 of a population; there being estimated to be about 50,000 of them engaged in the linen manufacture alone, the yearly value of the product of that one branch of their trade being upwards of six millions pounds sterling, while their consumption of coal exceeded one thousand tons a day, and came close to four hundred thousand tons a year. It was from this easy to see the great power of machinery at work daily in their midst, and the great dependence they had on the researches of science, and their interest to promote, by every means in their power, the labours of men of the British Association.

The new burgesses severally replied, Sir RODERICK MURCHISON remarking that at no previous meeting of the Association had there been witnessed a more substantial exhibition of hospitality than that afforded them by the town and neighbourhood of Dundee.

The President in Section A (Mathematical and Physical Science) called on Mr. Glaisher for his report on "Luminous Meteors." It contained a variety of interesting facts connected with these phenomena and was followed by some remarks from Professor Herschel on the character and quality of the meteoric light. Sir David Brewster contributed papers on the colours of soap bubbles; the figures of equilibrium in liquid films, and the colours of films of alcohol; the radiant spectrum, and other subjects. Papers also were read by Dr. Everett, Sir W. Thompson, and Mr. Ladd; while Mr. Claudet exhibited the new mechanical means of equalizing the focus which he had adapted to his photographic apparatus. The walls of the room were hung with several finely coloured diagrams illustrative of the flights of meteors.

Sections B and C again held their sittings. In the first department of section D (Zoology and Botany) Dr. Cabbold read a paper "on the entozoa of the common foul and of game birds in their supposed relation to the grouse disease," in which he expressed his decided opinion that the presence of entozoa had nothing whatever to do with the existence in the bird.

The Rev. H. B. TRISTRAM said he had examined several grouse which he had picked up in the Durham moors, and found that the livers of the birds were reduced to a sort of pulp. He held the disease was peculiarly an epidemic, for the healthiest birds succumbed just as quickly as the weakest. Grouse disease was on the increase, and he attributed this to the slaughter of all the strong and healthy birds by sportsmen and gamekeepers. Gamekeepers were, he said, the most destructive vermin that prayed upon the grouse. A beast of prey when it attacked a covey of birds always struck down the last and weakest of the flock, but the gamekeeper shot the bird that rose first, and thereby the finest and strongest of the covey were taken. In exterminating every animal and bird of prey from our country, we had destroyed the means provided by nature for clearing the land of diseased birds. This was an extremely short-sighted policy, and produced effects the very opposite of those it was intended to produce. Had the bussard and other birds of prey been left they would have cleared out the diseased birds, and the grouse disease would never have gained a footing. By killing off all the beasts of prey we had exterminated the sanitary police of nature.

The papers in the 2nd department of section D, were not of general interest.

On Saturday at 11 o'clock, the chair was taken in Section

E, by Sir S. Baker, who stated that the first business would be a report of the Palestine Exploration Fund, which had originated in a proposal for carrying a water supply to the City of Jerusalem from which arose the idea of a Palestine exploration. Many interesting particulars were related of the Holy Land, and Captain Wilson read a paper on the recent discoveries in and around the site of the Temple. Notes by Lieutenant Anderson were read, and Sir H. James stated that great difficulty existed as to the real sites of the Holy places, but the investigations of the Ordnance Survey had confirmed many statements of the Bible in a most unexpected manner.

After a brief discussion, Sir R. Murchison referred again to the Livingstone search expedition. He stated that Livingstone's object when he set out was to discover whether there was an outlet to the south from Lake Tanganyka, discovered by Burton and Speke, which was a fresh-water lake, and which, but for such an outlet as was supposed to exist, ought to be a saline lake. Livingstone started from the east coast of Africa and reached the north of Lake Nyassa, and had settled the point that there was no communication between Tanganyka and Nyassa, and there was considerable interest now attaching to the question whether Lake Tanganyka might not be in communication with the Lake Albert Nyanza, discovered by Sir Samuel Baker, on the north. In order to reach the south end of Tanganyka, Livingstone took carpenters to prepare boats, and was prepared to sail to the north end of that lake to determine if there was an opening there either to the Albert Nyanza or to the Victoria Nyanza. If he was alive, he must have passed to the Albert Nyanza, from which he was to descend the Nile. Should he accomplish that object he would then certainly be the most glorious of all explorers in African geography. Having traversed and retraversed Africa several times with black men only, and once before not having been heard of for above a year, there was no occasion for anxiety although he had not been heard of for that time. If he had escaped, they might depend upon it he would go on fearlessly, and on getting to the centre of Africa a long time must elapse before he could be heard of. As to Mousa's testimony of his death, it stood alone, for none of the other Johanna men were present at the alleged murder, and Mousa was not only a liar but a thief, and had, when examined by the Bombay sepoy who had accompanied Livingstone on a part of his journey, given a totally different version from what he had given to Dr. Kirk, having stated to the latter that he was murdered by the blow of a hatchet, and having stated to the sepoy that he was shot to death by arrows. As to Mousa's story that the Johanna men had recovered the body of their leader and buried it, he did not believe that so great a coward as Mousa, who stated that he had concealed himself when his leader was attacked, would have had the heroism to go and make a search for his body. But, whatever the fact, he felt, as President of the Royal Geographical Society, that it was their bounden duty to make a search for Livingstone, and he had accordingly urged on Government to send out an expedition to determine the truth of the matter. To the great honour of her Majesty's Government, this proposal had been most cordially responded to, particularly by Mr. Corry and the authorities of the Admiralty, and the details of the expedition had been most zealously worked out by the Hydrographer of the Admiralty, Captain Richard. As leader of the expedition they had chosen Mr. Young, a warrant officer who had spent two years on the Zambesi river with Livingstone, who knew the natives well, and was perfectly competent to manage them, and who entertained the same hope that he and others did, that Livingstone might be alive. The expedition would occupy the party at least till the end of November, and he hoped that by Christmas they would have received such tidings of them as would solve the problem.

Sir Samuel Baker briefly repeated some of the grounds which had led him to the conclusion that Mousa's tale was true. There was no doubt he was a pilferer, and had on one occasion stolen the beef of the party, which almost any African would do. There was no stronger ground to suspect his veracity on other points than there was to suspect the truth of the statement of a housemaid who might have made free with the tea and sugar (a laugh). Mousa was, he believed, a great blackguard, but, notwithstanding that, he felt constrained to believe his sad story. He rejoiced, however, to think that Sir Roderick Murchison was of a different opinion, and that a search was to be undertaken to ascertain his fate.

Sir Roderick Murchison added a few words in reply, stating that many African explorers had been longer absent than Livingstone, and they had heard reports of their murder, which ultimately proved untrue. Sir Samuel Baker had himself been on one occasion the subject of such a report.

The only section which met to-day (Saturday), was section E, there having been an adjournment of all the other sections, in consequence of the excursions to St. Andrews, Falkland, Glammis Castle, and Rossie Priory.

The excursion to St. Andrews was the most popular of all the four, nearly 200 ladies and gentlemen having taken part in it. A special train left Dundee at 8·40 a.m., arriving at St. Andrews shortly before 10. The party were met in the town by Principal Tulloch, Professor Bell, Professor Heddle, and other members of the University, and it was resolved that the excursionists should divide into two parties—one to go on a geological trip along the coast under the direction of Mr. Geikie, and the other to visit the antiquities of the town under the guidance of Professor Bell and other gentlemen. The major part of the excursionists accompanied Mr. Geikie. The geological party proceeded three or four miles along the coast, and here and there Mr. Geikie pointed out and explained the peculiar features and combinations of the rocks. The most interesting portion of the route was at the "Rock and Spindle," where there are some curious illustrations of marine denudation. At one point Professor Heddle, who was one of the party, showed that in twelve years the sea had either fallen or the earth had risen to the extent of a foot and a half. At some places it was interesting to observe the old line of the sea beach, which is thickly set with shells, &c., now ten or twelve feet above the present level of the sea. The Professor particularly requested that the party should not touch the fine column of the wheel-like formation on the "rock and spindle," which he said had already been destroyed to some extent. The party then walked or scrambled over the rocks for about a mile further, where luncheon was provided for them by the Senatus. After luncheon, Mr. Geikie announced that it had been originally intended that the Buddo Rock should be visited; but as some were anxious to go to the town in order to see the antiquities, he suggested that they should now return.

At this stage Sir James E. Alexander proposed a cordial vote of thanks to Mr. Geikie for his interesting addresses during the day, and also to the Senatus for their entertainment. The party returned to town about half-past 5 o'clock.

To the antiquarian section of the party the principal objects of attraction were the Cathedral, founded by Bishop Arnold in 1150; the Tower of St. Regulus, which is supposed to be not less than 700 years old, but which is still in excellent preservation, the angles being almost as sharp as on the day on which the building was erected; the Priory, founded by Bishop Robert in the reign of David I.; the fine ruin of the monastery of the Dominican friars; the tomb of Archbishop Sharpe; and the old castle—the most interesting part of which is the dungeon in which Wishart, Patrick Hamilton, and other martyrs were imprisoned.

At 5 o'clock a select party of the excursionists was entertained in the hall of the United College by the members of the University and several of the principal citizens.

After giving the usual loyal toasts,

Principal Tulloch proposed "Prosperity to the British Association," which, he remarked, had long taken a place as one of the greatest institutions of the country, many of the most illustrious of their countrymen having been associated with it, and some of the most brilliant achievements of science having owed their existence to it. It was with peculiar gratification they recalled the fact that to the letter of a distinguished man who had long presided over the United College of St. Andrews, the British Association owed—if not entirely, at least in a great degree—its origin, he meant Sir David Brewster, and it was no less a matter of gratification that the present head of the college, Principal Forbes, had been long one of the most eminent ornaments of the Association. It was no slight honour to the small University of St. Andrews that it had contributed two such names to the Association. The University looked upon the present visit of the Association to Dundee with great interest, and they only regretted that, from their limited resources, civic and otherwise, they must rest content with a visit from the present body of excursionists, instead of receiving a visit of the Association itself. The learned Principal concluded by coupling the toast with the name of Professor Phillips.

(For continuation, see page 299.)

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 25, 1867.

THE GREAT SEWERAGE SYSTEM FROM AN ECONOMIC POINT OF VIEW.

THE vast expense attending the construction and repair of the main drainage or intercepting system of London, is not the only outlay inseparable from such a system of drainage. We will proceed to consider this question in reference to the needful supply of water, and we shall find this latter to be an item of vast importance in more than one way, in connection with what appears to be at once an extravagant and an unproductive mode of dealing with the matter under consideration.

Valuable information on the subject more immediately under consideration, is afforded by the inquiry recently held in London by the Select Committee of the House of Commons. We there find it stated, on most competent authority,* that the constant supply system is almost, if not quite, an impossibility in a city of such magnitude as London. Moreover, it would appear that it is not in monster cities only that this system is regarded as almost an impossibility. In Boston (America), a city supplied with extravagant abundance—at the rate at first, at least, of nearly one hundred gallons per head per day, we learn that difficulty has arisen in the effort to maintain the supply. Nearer home, Glasgow, drawing its supply from Loch Katrine, has been often cited as perfection, not only as to quality, but also as to quantity of its water. But what do we now learn? A second line of pipes to the Loch are being laid down, and recourse is again being had to the Clyde for the needed compliment of water. An instance of a smaller community on what is alleged to be the constant supply system, is afforded by Croydon, where a church, valued at some £20,000, was burned, because the constant water supply proved most inconstant.

The fact appears to be that what is called the constant system, is necessarily a most wasteful and expensive one, and one requiring such supervision and such constant intrusion upon private houses, as is open to great objection on the score of domestic privacy. Besides the frequency of bursts in pipes under the pressure of vast bodies of water, adds greatly to the expense of maintenance, and to that incurred in defraying litigation and meeting claims for compensation, &c. Now it is at once evident that the main drainage system becomes wholly dependant upon the constancy of the supply of water as soon as the new arrangement of fittings, &c., are introduced, and the old system of house cisterns, &c., consequently abolished, hence it must be expected that accidents from fire, such as that at Croydon, will not unfrequently occur.

In the ancient aqueducts we have not evidence of a wasteful expenditure of water such as that necessitated by our present ideas of civilisation. Indeed, we have, not only in sacred, but also in profane writings, of every age, as well as in the ancient works to which we have just alluded, ample evidence of the error of extravagance and waste. Nature everywhere affords abundance for all legitimate requirements, but not for waste. Another way of viewing the question is this—when we construct vast intercepting sewers to provide for emergencies of surface, as well as for house drainage, we literally supersede our natural water-courses or river-channels by the intervention of most inadequately-sized sewers. We have, in a previous issue, shown the great error of trusting to such means in case of low-lying districts. The Select Committee to whose labours we have above alluded, has heard evidence as to the impossibility of providing what is called the constant supply system in London, and the great difficulty and the lavish expenditure, if not the impracticability, of providing for towns of even moderate dimensions, owing to waste, unavoidably imperfect fittings, bursting of pipes, and other causes.

Time and space would fail us if we were to describe the many schemes propounded in recent times in aid of the great drainage system. Bala Lake, in Wales, is now again mentioned as a source of water supply, this time for Liverpool. Several years ago it was recommended for supplying London. Ten years ago a member of our own Profession* proposed the Lakes of Cumberland and Westmoreland as a source of water supply for London, and this plan has been revived by Messrs. Hemans, Hassard, and Dale last year.

Before, however, assenting to such an enormous expenditure as these measures would need for their accomplishment, we should thoroughly investigate the whole working of our present system in connec-

* London Water Supply. Report of Select Committee of the House of Commons, May 16, 1867, p. 80 and seq.

* Dr. C. F. Moore.

tion with a careful examination of the other plans for the same end that are in operation on a greater or less scale in these and other countries.

MEDICAL STUDENTS AND THEIR TEACHERS.

The London Hospital has been, during the recess now drawing to a close, the scene of an agitation which we are scarcely justified in passing over without comment. One of our contemporaries has given up several pages to the free discussion of certain alleged grievances. The aggrieved persons are the students, and they have appealed to the public against the decision of their teachers in respect to the manner in which some of the appointments have been filled up. From all we are able to gather, they consider that they have been deprived of several much coveted positions by the admission of candidates who were not *full* pupils of both the hospital and the school. A gentleman admitted by all parties to be eminently qualified for the appointments, but whose education was commenced elsewhere, has been allowed after entering as a pupil of the hospital, and partly also of the school, to compete for and hold some of the residential offices which were believed by the students to be expressly reserved for those who completed their education in the two institutions. Now, as such appointments are necessarily limited, and as the opportunity of competing for them was considered by many as one of the main inducements for selecting the London Hospital as a place of study, it is easy to understand that the pupils might naturally be alarmed, lest the case in question should become a precedent, and this unusual circumstance should attract other persons from other schools, who having completed a large part of their education, would be enabled to carry off with ease all the Clinical prizes from their juniors, who are still pursuing other studies. We say this was but a natural fear, and its expression, is in fact, a hopeful sign for the next generation, since the greater the value attached by students to such opportunities of perfecting their Clinical instruction, the greater the certainty that the students are desirous of rendering themselves fit for their future duties. The fact is also flattering to the teachers, whose instruction is so highly appreciated, and a most conclusive indication of the fine sphere of study afforded by the London Hospital. The teachers, however, or rather a portion of them, for these matters are settled by a select body called the Council, were already committed to the gentleman in question, and therefore when the matter was mooted, expressed themselves to that effect—and unfortunately in a tone of authority, which only added to the growing irritation. It was clear, that in a case like this, the students must ultimately have their way, and in point of fact, the Council has, upon "gentle pressure," modified the regulations in a manner to effectually prevent future misunderstanding. Here the matter might well have ended, but for the unfortunate tone that had been adopted, for we are too well acquainted with the generosity of medical students as a body, to believe that they would for the sake of what had been done, remain blind to the possibility of inflicting injustice, by enforcing retrospective legislation. Their fears for the future having been allayed, judicious management ought surely to have found for the present a common platform, where each party might have allowed free scope to the noblest feelings of our nature. Unhappily this has not been the case, and in the public discussion that has followed, mutual recrimination has led to the introduction of many other points, and the ventilation of other alleged grievances.

A very little reflection will, we believe, shed sufficient light upon the question to extract from it all the lessons it offers, and thus confer upon it more than local interest. Every difference of opinion may be easily traced to the nature of the divided authority that prevails. The Hospital and the College are, in theory, quite distinct, but in practice the College is made subservient to the Hospital. This is aptly illustrated in the constitution of the College Council, which consists not of the whole body of the teachers, nor of the seniors even, but of the staff of the Hospital. The consequence is, to say the least, anomalous. A lecturer with twenty or thirty years of experience, however distinguished and popular, has no voice in the management of the College, while a junior assistant physician or assistant-surgeon just elected, and of necessity an untried man, by reason of being on the staff of the Hospital, is a member of the College Council. Whether such an arrangement as this can be calculated to promote the welfare of either institution is a question for grave consideration. It may be imagined that such a rule as this would be considerably modified in practice, and that teachers outside the magic pale of the Hospital staff would be consulted on what might nearly concern them. No such thing. A medical Gamaliel would receive no consideration. We believe we are stating only the bare truth, when we mention, as a glaring illustration of this, the position of the Chemical Lecturer. Probably, no reader of these lines is unacquainted with the reputation of Dr. Letheby, who, for a long series of years, has occupied the chair of Chemical at the London Hospital College. This learned professor had previously filled other offices in the school. To his labours, if we are not mistaken, the museum owes its specimens of comparative anatomy. As a lecturer his popularity is unbounded, as a chemical authority, his name is familiar as a household word. Yet, during all the long years in which he has conferred lustre on the college, and in which his eloquence has rendered the clinical theatre its centre of attraction, he has been kept outside the Council, and has no more voice in the government of his school than any reader of this journal. We commend this fact to the newly-formed Medical Teachers' Association; merely adding that the late Dr. Pereira highly disapproved of it. We are aware that other complaints have been made. We know there is still an undercurrent of discontent amongst present and past pupils of the hospital. We have heard it asserted that under the pretence of a liberal attitude to all it is fast becoming a disqualification for office to have been a London Hospital man. On these and other grounds we have heard all discussion deprecated lest it might injure the school. But in this idea we consider its friends are mistaken. What could be a greater inducement to new students to enter it than the knowledge that the pupils already there have fairly maintained what they believe their rights?—That the Council have yielded and revised the regulations? Is it not clear that in case of a mere grievance there would be no lack of support on the one hand, and no blind adherence to a prior decision on the other? Their clinical appointments worth so much discussion are surely incentive enough to prompt many an earnest student to compete for.

The New Session is about to open, and we feel sure that

teachers and students will work heartily together. The remarks we have made will doubtless be received in good part, and are certainly not directed to the local aspect of affairs.

By one of these happy accidents that frequently occur, the introductory lecture is to be given by Dr. Letheby. As we have already pointed out, he is not one of the Council, and therefore has no part whatever in the matter. It is well that at a moment when any of those concerned might have felt some delicacy in appearing on such an occasion, that a Professor should be found absolutely uncommitted to any course, and who, in a sense, must have been indifferent to the issue. Not that we would imply any indifference in his mind to the welfare of his pupils, for no teacher takes more pains to instruct them, but we wish to express the almost impossibility of his having a bias in favour of the Council. Indeed, from the cold neglect with which he has been treated by that body, it speaks well for his generous heartedness that he should be willing to carry out the arrangement, and deliver the Introductory Address. No doubt his attachment to the sphere of his long labours has prompted him to do so, and the motive will be appreciated by both present and past pupils. They know that whatever topic he may select for his lecture, will be presented with that clearness and eloquence that has never failed to charm, and they will accord to him a hearty welcome they might be tempted to refuse to others. Even those who remain still dissatisfied with the Council as at present constituted, can scarcely express their feelings more pointedly than by an enthusiastic reception of the popular teacher who is to this day excluded from all participation in the government of his College. The greater the ovation the more distinct will be the expression conveyed, and yet the Members of the Council must themselves perforce join in it, and swell the chorus of applause.

THE MOUNTJOY PRISON, DUBLIN.

THE determination of the Government, of which we informed our readers some months since, not to fill up the vacancy of Visiting Medical Officer of the Female Prison, caused by the death of Dr. Awley Banon, has been carried out. It will be remembered that we anticipated that the services of Dr. Robert M'Donnell, the Visiting Medical Officer of the Male side would be dispensed with, and that a Resident Surgeon would be appointed to take medical charge of the entire establishment. Our anticipation of this arrangement, which we strongly condemned, has been fulfilled, in the appointment last week of Dr. Young, of Ballibay, at a salary of £300 a-year, to the sole charge of the entire prison. We cannot but think that the narrowing of the connection between the inmates of the prison and the external world, and the removal of that safeguard for the compassionate treatment of the prisoners, which the inspection of extern Medical Officers ensures, must prove most injurious not only to the efficiency of the prison, but to the confidence which the public should feel in its administration. It cannot be forgotten that more than one proof has been afforded that Governors and Gaolers are not infallible, and that the wholesome restraint of supervision is required to protect prisoners against the despotic power which is placed at the disposal of the officers. The ostensible reason for this change, it is to be presumed, is the saving in respect of salaries. It comes, however, unfortunately as a sequence of inconvenient interposition in favour of the prisoners emanating from the Medical Officer, who has been superannuated "out of the way." The twelfth annual report of Dr. Robert M'Donnell contains the following protest :—

"I object, on medical grounds, to the punishment of prisoners by giving them insufficient clothing, as one not only likely to develop scrofulous disease but highly likely to give rise to acute disease also. Last winter, when an attempt was made to introduce this mode of punishment into this prison, I objected, as you are aware, to its introduction at that time.

"On the 7th of January, 1865, when visiting the punishment cells, I found a prisoner in one of them looking very miserable. He was stooping forward with his hands thrust between his legs, his extremities were cold, his features shrunken, he shivered, and his teeth chattered. He had the appearance of a man labouring under serious illness; indeed the leaden hue of his face and sunken eye looked like that of a patient struck with Asiatic cholera.

"I inquired what ailed him; he said that he was cold, very cold; that no bed or bedding, except a single rug, had been allowed him during the night; that he had lain on the floor, with no other bed-clothes than a rug to cover him, and that he was cold into his very bones. I asked if it was so, and was informed that an order had come from the Directors' Office to the effect that prisoners under punishment were to be deprived of their beds and bedding (except the rug) during the first nights that they were undergoing punishment. I asked to see this order. About the time referred to the weather was exceedingly inclement. *By looking at the Registrar-General's returns it will be seen that during the beginning of January, 1865, the cold was on some nights intense—several degrees below the freezing point.*

"The weight of the rug allowed to the prisoner I ascertained to be not more than four pounds. He had nothing but the floor to lie on, no bedstead, mattress, or pillow. I directed that in future the usual bedding should be given to the prisoner mentioned, and I remonstrated against the adoption of this mode of punishment in general.

"On the 10th of January a memorandum was forwarded to me from one of the members of your Board, stating that this mode of dealing with prisoners under punishment was followed at Spike Island Prison, and in the army.

"This, I confess, appeared to me to be rather an argument in favour of its discontinuance at Spike Island, than one for its adoption in this prison. I wrote in reply, expressing strongly my disapproval of it. Feeling, however, that everything of this kind should be judged of by experience, as, after all, this is the true criterion whereby to test the fitness or unfitness of such a punishment, I went, by the permission of Mr. Tufnell, to visit the military prison at Arbour-hill, and judge for myself of the effects. I found that in this prison, instead of being given a rug only with the floor to lie on, each prisoner under punishment during the cold weather is raised off the floor on a beadstead, and has a good blanket as well as a rug.

"I hope, gentlemen, that you will pardon me for entering so fully into this subject. I regard it as a very important one, and beg leave to assure you that my observations are not dictated by any feelings of maudlin good-nature or foolish philanthropy. I am as well aware as any man how necessary it is to have an iron hand in dealing with the convict classes, and that often firmness, severity, and sternness are the greatest humanity."

To this remonstrance, which was supplementary to an equally energetic protest against punishment by restricting the dietary, "the Directors have to regret that the Medical Officer has considered it necessary to make the exclusion of meat from the dietary for the first four month

of confinement (a practice in the prison for some years) an exception. The Directors consider the exclusion of meat generally for such period *very desirable.*" Again, on the thirteenth annual report, Dr. M'Donnell alludes to the case of the notorious Pagan O'Leary, whom he found in such a state that he at first thought him insane, from having been placed on *bread and water, Penal Cell, and a Weekly Report*, for having refused to attend the religious ministrations of the Episcopalian, Presbyterian, or Roman Catholic Chaplain. Whether the removal of Dr. M'Donnell, and the installation of a Medical Officer resident in the prison, (and, therefore, necessarily more or less bound to the policy of the Governor and the Board of Directors), were in the relation of cause and effect to these remonstrances, it is plain that in this prison, not more or less, perhaps, than elsewhere, an unfettered medical inspection is urgently required, and the public, when such a safeguard is removed, must watch with jealous vigilance the proceedings of the treatment of the prisoners.

Notes on Current Topics.

THE EDUCATION OF IDIOTS AND IMBECILES.

On more than one occasion during the last year or two we have adverted to the comparatively recent move made in Dublin to establish there an institution somewhat on the Earlswood model. We have given this project our warmest support; and it is only to be regretted that the financial state of Ireland has not been sufficiently prosperous to warrant the building and working of an establishment, than which nothing can more highly commend itself to the mind of the medical philanthropist. Considerable sums of money have been raised for this purpose; but, as yet, the funds so available are far short of the amount necessary to launch the proposed institution, and give it the means of support which experience in other similar or analogous cases has shown to be absolutely necessary. During the recently concluded session of the Social Science Congress, held in Belfast, this subject occupied the attention of the Education department, over which Dr. Andrews presided. The report, which we give in another column, states that on this occasion the room was crowded; that considerable interest was manifested in the proceedings; and that a large number of persons desirous of being present were unable to obtain admission. The special question discussed was—"What is the best method for educating the idiotic and imbecile, and ought the State to subsidise educational establishments for such persons?" We shall not further enter into details at present, especially as the report already referred to, while short and concise, is well worth reading, and it will cause no surprise to our readers to see that Dr. Kidd of Dublin, who has so thoroughly worked this question in its most minute ramifications, was one of the principal speakers on this occasion.

THE MEDICAL COUNCIL.

The *on dit* has obtained currency in Dublin, and is believed to be well founded, that next year, at the expiration of his term of service for ten years as Representative of the University of Dublin at the Medical Council, Professor Apjohn will retire from that position for the purpose of devoting his entire time to his labours as Professor of Chemistry in the University, and that his place will be occupied by the Reverend Samuel Haughton, M.D., Fellow and Medical Registrar of Trinity College. Should this change take place, the Council cannot fail to receive great strength from the unflagging energy and great talents of the new representative.

SALE OF THE GIESSEN DIPLOMAS.

A correspondent of a medical contemporary writes—"I am in a position to prove the assertion made by Sir Dominic Corrigan respecting German degrees. I have in my possession a letter dated Glasgow, July 9, 1867, from a registered M.D., offering to procure me a diploma from Giessen for the sum of £32 12s. I shall send over the name of the party to the Dean of the Medical Faculty if he thinks proper." This statement has been corroborated within the last three days by a Medical gentleman in Dublin, who was aware of a similar offer being made in that city.

THE ABYSSINIAN CAMPAIGN.

The three hospital ships for service with the Abyssinian expedition, fitting at Deptford, are nearly ready for service. They have been prepared under the superintendence of Dr. Massey, Deputy Inspector-General Sanitary Officer at the Medical Board in London. They are fitted up in the same manner as those furnished for the Chinese expedition, with such further improvements as experience has suggested. A surgeon and assistant-surgeon will be attached to each ship. The following appointments have already been made:—Staff-Surgeons—Charters, Woodward; and Staff Assistant-Surgeons—Wheeler, Fairland, and Murphy.

CANNIBALISM.

The *South London Press* has for several weeks been sensationalising its readers with the statement that a Medical Student of St. Thomas's Hospital had cooked and eaten a piece of human flesh. The authorities of the hospital having investigated the statement, found that it was well founded as regards a Chemical Assistant, not a Medical Student, who had, out of bravado, and to show his contempt for prejudice and conventionalities, tasted a piece of human flesh. The idea is sufficiently disgusting, and the frame of mind which permitted it sufficiently objectionable, without exaggerating the atrocity of the act, or attributing to the perpetrator any greater crime than senseless bravado, and an utter blunting of the inherent spirit which revolts from such a piece of barbarity. The authorities of the hospital having duly and properly expurgated their class from contact with the culprit, we hope to see no more disquisitions on the horror of anatomical dissection, and the butchery tastes of Medical Students.

BRITISH ASSOCIATION PROCEEDINGS.

(Continued from page 295.)

Professor Phillips, after returning thanks for this splendid banquet, and for the facilities which had been afforded to the visitors for seeing the antiquities of the city, said they owed to Scotland—nay, owed to the University of St. Andrews—the British Association. Sir David Brewster—that glorious name must be mentioned first of all in connection with it, but there must be joined with him James David Forbes, Sir John Robinson, and James William Johnston—these four men combined in 1831 to form the British Association. They were actuated by a free and generous feeling, and desired to make it not a mere speculative institution, but a working body, and in a city half-way between London and Edinburgh, in his (Pro-

fessor Phillip's) private lodgings in the city of York, they met to form an association which would be an additional bond of union between the two kingdoms. Since that time none had contributed more to the success of their meetings than the men from the northern kingdom. No single man in that whole region of science had been more eminent for his discoveries than Sir David Brewster, and most thankful was he to have seen him at this meeting in good health and brilliant spirits.

Professor Sir WILLIAM THOMSON gave the "University and city of St. Andrews," and spoke of the able assistance given to the Association by Professors Fischer, Swan, and others. He thought the Association should ever be closely associated with the Universities. Indeed, but that it had not a local habitation, it might be said to be a University in itself.

Principal TULLOCH, in reply, said the body he represented was the oldest University in Scotland, dating from 1410. During last century the University had somewhat decayed, but while, owing to the exertions of the late Provost Playfair, the city had assumed a new aspect, the University had become animated, if not by a new spirit, at least by a spirit corresponding to the demands of the time.

Provost MILTON returned thanks for the city.

Dr. CHAMBERS proposed "The Geological Section"—the "glorious old Section C." He felt that one of the greatest advantages attending the meeting of the British Association in any place was that it fired the youthful mind with a sense of the beauties and glories of science. He coupled the toast with the name of Mr. Geikie, who replied.

The Rev. A. K. H. BOYD proposed "Scientific Travel and Exploration," coupled with the name of Dean Stanley, on whom he passed a high eulogium.

Dean STANLEY said he wished to express his sincere thanks for the way in which the company had received the toast, and to his friend, Dr. Boyd, for the kind way in which he had proposed it. He felt that he had no claim whatever to be present. He felt like Saul among the prophets. There were two points, however, as to which he might say that the toast which Dr. Boyd had proposed connected him both with St. Andrews and with the British Association. He had a certain foible that he had never been able fully to believe any historical event till he had seen the locality in which it had occurred. It was that which originally brought him to St. Andrews. He could not believe after all he had read that Archbishop Sharpe had really been murdered till he had examined Magus Moore, and his friend, Principal Tulloch, would remember the trouble he (the Dean) gave him when he took him over brambles to see the exact spot on which the murder took place. But after that he had come year after year to St. Andrews, and from the charm of the place, it had always been a kind of second University to him. He had been able to pursue his studies here apart from the constant abstraction of London and Westminster; and he did not think that he could have pursued them better in any other place. He therefore felt that he had a right to come here on account of what he considered a half matriculated connection with the University. The other thing connecting him with the British Association was the exploration of Palestine. He wished he could lay any claim to be an explorer. He had seen Palestine, as thousands of travellers had done, without having an opportunity of exploring. On that ground he thought it necessary that there should be a fund established for the exploration of those mysteries which no mere traveller had been able to ascertain; and it was with pleasure that he had heard the subject brought before the Association. Napoleon, when he was at Jaffa, was asked by some one to go and see Jerusalem; but he replied, "It is not within the line of my operations." It gave him great satisfaction to think that the British Association took a different view of the matter, and that it had confessed that Jerusalem, in more senses than one, lay within the sphere of its operations.

Professor FLINT, St. Andrews, proposed "the Economic Section of the British Association," coupled with the name of Mr. Grant Duff, M.P.

Mr. GRANT DUFF, in reply, said that the Scottish Universities, from no fault of their own, had never given to the science of Adam Smith that full and cordial recognition that might have been expected. It was the fault of the State, the fault of the House of Commons, that such a state of things existed. He was happy to see that the benevolence of Scotland was beginning to flow towards the Universities, and that it was taking chiefly and wisely the form of fellowships to give encouragement to those who had made certain progress in learning. Looking to the statistics laid before Parliament, and to those laid before the Economic section by Professor Levi, he did not think that any man could doubt that Scotland had a claim to additional grants from the State.

Professor ROGERS, Oxford, in proposing "The Houses of Parliament," said that he trusted now that the Reform question was settled, all parties would endeavour to bring about in the best and ablest way the greatest possible amount of good to the people at large. He begged to couple the toast with the name of Sir Robert Anstruther.

Sir ROBERT ANSTRUTHER replied.

Dr. STORRAR proposed "The Course of Social Progress," coupled with the name of Sir John Bowring.

Sir JOHN BOWRING, in reply, said that he had long lived in a country of social stagnation, where the only inquiry was "What were our forefathers?" and he came to countries where the inquiries were "What are our children to be?" That represented the whole question between the enlightened and the unenlightened nations. He did not say but that in China they had some reason to be proud of their past; and as to the future, he had hope of that country. There was there the machinery of public instruction, but the instruction they had not. Now, if the time should come when his friends around him would get hold of that great machinery he believed they would be able to raise the social condition of the 400 millions of people in that country, which would have a great influence on the world at large. He thought the duty of this Association was to look forward—to take from the past what the past could teach them, and he was convinced that they would give to the future something greater than the past could teach them.

Professor CAMPBELL, St. Andrews, then proposed, "The Literature of Science," coupling it with the name of Professor Kingsley. He also mentioned the names of Professor Forbes, Dr. Chambers, and others, who deserved honour in connexion with his toast.

Professor KINGSLEY said he had to return thanks for the unexpected honour of coupling his name with any toast within those learned walls, and especially in connexion with the meeting of such a body as the British Association. He did not speak for those honoured names which Professor Campbell had mentioned, but only for what he would call the camp-followers of science, who came after the great columns of the army, hanging on to the outskirts, perhaps taking care of the sick and wounded, perhaps foraging and plundering a little. Other men laboured, and they entered into their labours. However, the best thing they could say was that while they robbed—and they robbed pretty handsomely, too,—they always kept a few scraps for the children. They were always fair and just, and even generous to them; and with regard to the children, what he wanted was to teach them a scientific habit, to teach them to understand that the great Master of the universe was speaking to little children face to face in everything. If they, as the camp-followers of science, could get a few little children to understand that, they would have saved the British Association in the future a great deal of trouble.

Professor HIRST then proposed "the health of the Chairman," in acknowledgment of the genial and kindly manner in which he had presided.

The CHAIRMAN returned thanks, and said he had been greatly indebted to Professor Bell and Mr. Stuart Grace for their valuable assistance.

The company then adjourned to the University library, where a *conversazione* was held.

The proceedings terminated shortly before 10 o'clock, at which hour the excursionists returned to Dundee by special train.

On Monday, at eleven o'clock, the Section resumed their sittings. The audience varied considerably, the Geographical Section seeming most popular—though other sections were numerously attended, when subjects of general interest were discussed.

Mr. SYMONS read the report of the Rainfall Committee in Section A, and a paper by Mr. Alexander Brown was read by Mr. Glaisher, followed by a discussion on the advisability of collecting the rain-water in certain places for the sanitary deficiencies of towns and villages, and the regulation of water power. But most interest seemed to be excited by the subject of storm warnings. Colonel Sykes calculated in a paper read by him that out of 405 warnings as many as 305 had proved correct. He said these warnings had been stopped by the Royal Society on the ground that they were an affectation of science. All the speakers were unanimous in the wish for these signals to be renewed, and the following resolution proposed by Mr. Home, and seconded by the Duke of Buccleuch,

was carried by acclamation. That this Section apply to the Council of the Association to make a communication to Her Majesty's Government urging them to institute arrangements for storm signals being resumed.

In section B (Chemical Science) Dr. CRUM BROWN read a paper on "The Calculus of Chemical Operations." His object was to discover the simplest operators, but this was extremely difficult, inasmuch as the simplest elements were scarcely known. He maintained that the scheme of Sir Benjamin Brodie was at least as worthy of recognition as the theory of atoms, but objected to the assumption that the unit of a substance was also an atom. He preferred to adopt simple factors as the basis of a chemical calculus, forming these into equations, and giving the latter the simplest interpretation. After some remarks by Professor Clerk Maxwell, the Rev. Professor Harley, as a mathematician, supported Sir B. Brodie's system in preference to Dr. Brown's. Mr. Catton maintained that Sir B. Brodie had founded his system on strictly scientific grounds. He was of opinion that no great advance could be made in chemistry until they were able to express their operations in proper symbols and equations.

Professor WANKLYN had looked carefully over Sir B. Brodie's system, together with his colleague, but had been unable to find anything beautiful in it.

The Rev. Professor HARLEY said that the beauty depended a great deal on the spectator. He warmly defended Sir Benjamin's system.

Dr. ODLING supported Brodie's calculus, and explained that by taking hydrogen for the standard element in this system, he provided means whereby the smallest quantity of the element could always be added to or subtracted from the unit of any other substance.

Professor WILLIAMSON expressed his very strong appreciation of Sir Benjamin's work in the main, although he differed considerably from him on many points.

The PRESIDENT regretted that they were not in possession of the whole of Sir B. Brodie's investigations on the subject. When the other part was published they would be in a much better position to judge of his whole system.

In section C (Geology) "The third report of the Committee for the exploration of Kent's Cavern, Devonshire," was read by Mr. Pengelly. It contained a full account of this singular place abounding with fossil remains in unusual combination. The point of interest in the report was the finding of traces of human remains in the old floors of the cavern. One of the discoveries was a marrow bone, which was split longitudinally in a manner impossible to a hyæna, animals whose remains were found in the cave, and which it was impossible to believe could have been split by other means than human agency. To verify his belief in this respect, Mr. Pengelly got the intelligent keeper of the hyænas in the Zoological Gardens, London, to supply the most powerful hyæna in the gardens with marrow-bones for a whole week, and none of these bones were broken in the same way as those found in Kent's Hole. The conclusion from the discoveries which had been made in the cave was that man occupied Devonshire when it was the home of the extinct lion, rhinoceros, mammoth, and hyæna, the remains of which animals had been found in the cavern. In the stalagmite floor of the cave, twenty inches thick, below the black mould and the blocks of limestone on the surface, there had been found part of a human jaw containing four teeth, and lower down a great abundance of beautifully shaped flint implements; more recently burnt bones, and, as now first reported, bone tools had been discovered.

Papers also were read on Stratified Rocks in Corsica, and on the "Internal Heat of the Earth." Sir Charles Lyell thought it would be found that igneous seas and lakes had been formed first in one part, then in another, that it was this and not an internal igneous core of the earth, which explained the appearance of cooling that was obvious in the rock.

Professor PHILLIPS addressed the section, pointing out the uncertainty of the knowledge on underground temperature.

Two papers were read in the first department of section D, on birds' nests, and on the marine fauna of St. Andrews—the papers in the second department were altogether of a technical character.

Sir J. LUBBOCK in section E, read a paper on the "Origin of Civilization and the Early Condition of Man." In a previous sitting of this section a paper had been contributed by Mr. Crawford "On the Antiquity of Man," assigning to him a very distant place in past years, arguing from language, from the art of writing, from the cultivation of the cereals and the domestication of animals that he must be of vast antiquity; the portion of his history which has transpired since he acquired the art of making a durable and authentic record of his own existence being a very small fraction of it. The paper in this sitting referred to his condition in that early age. Sir John stated the two views entertained by opposite parties on this question; the first, that man was originally in a savage state, and that his history, with some exceptions, has been a steady advance towards civilization; the other, that he was at the first much, if not superior to, what he is now, and that savages have invariably degenerated from far superior ancestors. The most eminent supporter, he said, of the latter theory was the late Archbishop Whately, and he proceeded to state many facts which he considered quite opposed to the view of the Archbishop. After enlarging upon them and showing their bearings in various ways he remarked—In conclusion, then, while I do not mean for a moment to deny that here are cases in which nations have retrograded, I regard these as exceptional instances. The facts and arguments I have adduced afford, I think, strong grounds for the following conclusions—namely, that existing savages are not the descendants of civilized ancestors; that the primitive condition of man was one of utter barbarism; that from this condition several races have independently raised shemselves. These views follow, I think, from strictly scientific considerations.

A prolonged discussion on the subject took place, after which several papers were read on other topics before the sitting closed, the principal one being "On the character of the negro, chiefly in relation to industrial habits."

The proceedings in Section F were opened by Mr. A. J. WARDEN, who read an important paper on the "Linen Manufactures of Dundee." He reviewed the trade from an early period, stating that the first spinning-mill in the town was erected in 1792; that at the end of the century five mills of an aggregate 60 horse-power were in operation, and that though some did not pay, and were soon stopped, yet in 1822, the trade had so extended, that there were 17 mills of the aggregate of 178 horse-power. In ten years from that time, the number had increased to 43. About this period, a new fibre—jute—was introduced, which quite altered the character of the trade, to which a great impulse was given by the Crimean war. Subsequently, in the American war, the requirements were so great, that the machinery was inadequate to supply the demand. New mills were erected, and in 1864, there were 61 firms engaged in spinning and weaving in Dundee, with 160 steam engines of 4621 horse-power. At the present time there are 72 firms who own spinning-mills or power-loom factories of 5822 horse-power. In these works, with hand-loom weaving and other auxiliary branches, it is estimated that no fewer than 60,000 persons are employed. In the entire district, of which Dundee is the centre, about 60,000,000 spindles of yarn are spun every year, giving a value of £6,750,000. The capital invested in mills and factories throughout the district amounts to £4,700,000. These figures show the importance to the neighbourhood of these manufactures, and the impetus they have given to the enterprize and industry of the population.

Other papers were read, particularly one by Mr. RENALS, of Nottingham, on the beneficial operation of a Board of Arbitration and Conciliation in the hosiery manufacture of the Midland Counties. It was composed of an equal number of manufacturers and workmen, the bases of union being mutual agreement to abide by its decisions. It had worked admirably for six years. Some discussion ensued, and the general feeling was that Courts of Arbitration would be beneficial in settling cases of dispute between employers and workmen.

Several papers were read in Section G, and at 3 o'clock a meeting of the general committee was held under the presidency of the Duke of Buccleuch.

Tuesday Morning.—In Section A Professor HIRST spoke in reference to the correspondence said to have taken place between Sir Isaac Newton and Pascal, lately communicated to the French Academy. He was requested, he said, to bring this matter forward if opportunity presented for the opinion of the members of this section. He expressed his disbelief of the genuineness of the letters for several reasons, pointing out many difficulties in the way of receiving them as authentic.

Sir DAVID BREWSTER said he had received from Professor Charles several of Newton's letters, or extracts from them, which would be very interesting to those who took an interest in this question. He then gave his reasons for thinking that this was a gigantic fraud—the greatest ever attempted in the world as connected with science and literature. He showed—1. That the alleged correspondence must have taken plaec

when Newton was a boy at school, only 11 years old, and that then he must have written on the infinitesimal calculus when he knew nothing of mathematics, and was occupying himself with boyish sports. 2. That there is no evidence that Pascal and Newton had any correspondence. 3. That the letters of Pascal have been found to be another hand, and the signature not his. 4. That the letters of Newton are not in his hand—one is signed "Newton," as if he were a peer, another "I. Newton," a sign he never used. 5. That an experiment with coffee is mentioned in one of Pascal's, and coffee was unknown in France at that time. 6. That the letters said to be Newton's are in French, a language in which he never wrote. All his foreign correspondence is in Latin. 7. That the style is not Newton's; he expresses "eternal" gratitude to Pascal, a word an Englishman would never use. From these and other considerations he comes to the conclusion that there could be no doubt, therefore, that the letters of Newton and Pascal were forgeries calculated and intended to transfer to Pascal the glory of the discovery of the law of gravitation which was due to Newton.

An interesting communication from Mr. Thomas Stevenson, on the illumination of beacons at sea by electricity, closed the sitting, after some beautiful experiments had been shown, and a vote of thanks given to Mr. Stevenson.

Sections B, C, and D, again held their sittings. Various papers on different subjects were read. The papers on the list in the Department of Physiology were "On the Phenomena of Life and Mind," by Mr. R. Dunn, F.R.L.S., and "Life, its Nature, Origin, &c.," by Mr. P. Nelville. Mr. Crawford in Section E, read a paper on the plurality of the races of man, followed by a discussion having reference to the system held by Agassiz, and Professor Forbes on the one hand, and the Darwinian theory on the other. In Section F Professor Rogers read a paper in which he advocated an examination by the state into all educational funds and endowments, with the object of redistributing those which were not now fulfilling their purpose, and in Section E Admiral Sir E. Belcher read a paper on the methods of testing the speed of vessels over the measured mile.

An interesting discussion followed, in which it was suggested that Government vessels ought to be made to run a distance of 60 miles in a seaway, in order to get a practical test of their average rate of speed. The thanks of the section were accorded to Admiral Belcher.

In the evening there was a second *conversazione* in the Volunteer-hall, and a ball in Kinnaird-hall, which was attended by about 400 ladies and gentlemen.

Wednesday.—The concluding meetings were held to-day. The only Section which met was Section A, where the secretary read a paper from Mr. C. Wheatstone, "On a new Telegraphic Thermometer, and on the application of the principle to other Meteorological Indicators." He exhibited the instrument and explained its construction; and concluded by stating the purposes to which it might be applied. If it was desired to ascertain the temperature on the top of Mont Blanc, a portion of the apparatus called the responder might be placed there, and a communication having been established between it and the questioner, observations of the temperature of the mountain might be made hourly in the Vale of Chamouni. Again, the responder might be placed in the bottom of the sea, or at any depth beneath the surface of the earth, and the most accurate observations could be obtained without removing the instrument.

Mr. HIRST announced that Dr. W. B. Richardson had given notice of his intention to move at next meeting of the general committee that a special section be founded for applied sciences.

Sir RODERICK MURCHISON then formally adjourned the meeting of the general committee till August next year, when they would assemble in Norwich.

The concluding general meeting was held in Kinnaird-hall, at 3 o'clock, the Duke of Buccleuch presiding. Sir David Brewster, on entering the hall shortly after the proceedings had begun, was very cordially cheered.

Professor HIRST read the list of proposed grants for the year, as above stated; also the recommendations of the committee of recommendations, which had passed the general committee, and which were now approved by this meeting.

Mr. GRIFFITHS made a statement as to the number of tickets issued and the amount of money received, the tickets being 2444, and the payments £2613.

Professor RANKIN proposed a vote of thanks to the executive committee, to the local secretaries and the local treasurer, to the railway authorities, and to the press.

The motion was seconded by Mr. NAPIER.

Sir John OGILVY, M.P., proposed a hearty vote of thanks to his Grace the Duke of Buccleuch, for having been kind enough to preside over this most successful meeting of the British Association.

Sir RODERICK MURCHISON seconded the motion, and concluded by proposing a hearty cheer for the Duke, to which the audience rising responded in a body.

The Duke of BUCCLEUCH said,—Gentlemen of the British Association for the Advancement of Science, and ladies and gentlemen,—I have to return you my warmest and most sincere thanks, not only for the honour which you have now done me by recording your vote of thanks to me, but for the manifestation which you have just made of the estimation in which you hold my humble services. I have to thank one and all for that great kindness towards me, for the manner in which you have received my exertions such as they have been; and whether they have been successful or not, I will only take credit to myself that I have endeavoured to do my best. I have also to thank you for your forbearance in the many shortcomings in which I feel that I required that forbearance. But, gentlemen, as Sir Roderick Murchison has told you, it is perfectly true that it was with very great doubt and very great hesitation that I could make up my mind to accept so important, so onerous, and I will say so responsible a position. But, ladies and gentlemen, I must say that this will be a time which I can look back to with honest pride. I feel that whatever my own position may be in this country, or whatever position may be assigned to me, by being put at the head of this great Association that position has been raised still higher by the support of those men, illustrious in science, who have honoured me by their presence and support. It is unnecessary for me to allude to my illustrious countryman, Sir David Brewster, for if anything could give grace, weight, and honour, to your meetings, whether for scientific purposes or for any other purposes in this country—his presence certainly would do honour to these meetings and raise the tone of them. Allow me to say that I cordially concur in those votes of thanks for the cordiality and hospitality with which we have been received in this town. I have now to declare that this meeting is adjourned to Norwich in the month of August next year. While saying that, I must also be allowed to express my own satisfaction and gratification to find that one so well-known in science—I may say of world-wide fame—is to preside at that meeting. I beg now to declare that this meeting is adjourned.

SOCIAL SCIENCE CONGRESS AT BELFAST,

THURSDAY, 19TH SEPTEMBER, 1867.

EDUCATION OF IDIOTS AND IMBECILES.

(*From the Daily Express.*)

EDUCATION.

DR. ANDREWS presided in this department. The room was crowded, and considerable interest was manifested in the proceedings. A good number of persons desirous of being present were unable to get admission. Amongst those present were: The Lord Bishop of Down and Connor and Dromore, the Moderator of the General Assembly (Rev. J. Montgomery), and Charles Lanyon, M.P. The special question for discussion was "What is the best method for educating the idiotic and imbecile, and ought the State to subsidize educational establishments for such persons."

Dr. WM. M'CORMAC read a paper contributed by J. Langdon H. Donn, Esq., M.D. The writer was unable to attend. The contributor said he believed the greatest proportion of idiocy was to be found amongst the lower classes—amongst those who are constantly engaged in a struggle for existence. The first necessity of an idiot was to give him companionship. Any system pretending to be efficient should combine medical, physical, moral, and intellectual treatment. It should be founded on a basis of medicine. The surroundings of an establishment for the cure of idiots should be agreeable It was impossible to improve the physical condition without also improving the brain. The influence of discipline and training had a very appreciable effect on the mental condition of the subject. Corporal punishment should be avoided, and a kindly tact should be exercised by the teacher. Self support should be in every way encouraged. He strongly contended that pauper idiots should be provided for by the counties, but should never be

treated in the lunatic asylums. He advocated voluntary effort to provide for the wants of these unfortunate persons.

Mr. LAMBERT, one of the secretaries, read a paper contributed by Martin Duncan, Esq., M.B., of Essex Hall, on the same question.

Dr. G. H. KIDD read a paper on the same subject. He said he regretted there was no institution in Ireland for the care of idiots exclusively, and they could not, therefore, speak from personal experience. He quite agreed with former speakers that the system of herding lunatics and idiots together was most objectionable. Dr. Kidd entered into statistics of idiots in the United Kingdom, with a view of showing that there was no real provision made for their necessities. At the last census there were 7033 idiots in Ireland; of these 5675 were at large, either wanderers or under the care of their friends; 403 were in asylums, 934 in workhouses, and 21 in prisons. The writer referred to the proposed establishment in Dublin, started under the auspices of Lord Kimberley, and supported by the present Lord Lieutenant. Under such auspices it could not fail; but there was still a deficiency of funds amounting to some £3000 which he appealed hopefully to the public to subscribe. The address was very favourably received, and the speaker sat down amid general applause.

Dr. SKAE said the best method for educating the idiotic and imbecile was to be gathered from the papers. The greatest treat he thought was a visit to such an institution as Earlsford, where there were some hundreds of happy boys and girls. He thought it a purely philanthropic pursuit, and neither State nor parochial endowment was a fair demand. The community should take the first step in this matter, and perhaps the State might in some way supplement the effort.

The BISHOP of DOWN said the State should make arrangements for the idiot pauper. He thought the asylums should be erected by public subscription, and these institutions should be then endowed by the government through the rates on the county. He thought the voluntary efforts of the philanthropic would make up the deficiency of a small rate. He hoped the work would be proceeded with at once.

Dr. BRACEBRIDGE, Birmingham, very briefly referred to the efforts now being made in England.

Mr. LANYON, M.P., spoke to the question. He promised them, whenever the question of State support came before Parliament, it should have his warmest support.

Dr. ARNOLD contended that the condition of the pauper idiots in this country was most disastrous and discreditable.

Correspondence.

DR. DOBELL'S ANSWER TO AN ANONYMOUS LETTER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The following anonymous challenge came to me today by post:—

"Does Dr. Dobell venture to assert that he does not prescribe a secret remedy, and tell his patients that pancreatic emulsion must be made by a certain chemist, and will Dr. Dobell venture to assert that he does not receive an honorarium from said chemist."

As I hear on all sides, that these questions are going about among medical men, will you allow me to give them a public answer in your columns.

It has already been stated again and again, and I now repeat—1st. That pancreatic emulsion is not a secret remedy, its composition has been announced over and over again, privately and publicly, and it is open to all chemists. 2nd. That I have not the slightest pecuniary interest, past, present, or future, in pancreatic preparations, and I have never received the value of one farthing in any shape or form, from any chemist or other person, for any invention or preparation of any kind.—I am, Sir, your obedient servant,

HORACE DOBELL, M.D.

84, Harley-street, September 9th, 1867.

THE RESIGNATION OF THE MEDICAL OFFICERS OF THE ROYAL CHEST HOSPITAL.

"TO THE GOVERNORS OF THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

"GENTLEMEN,—Two letters, one signed 'Horace Dobell, M.D.' the other 'by order, Charles L. Kemp, Secretary,' and both relating to our resignation as medical officers of the above-named charity, have been forwarded to you. As both letters are constructively the same, as they bear internal evidence of one directing hand, and as the letter 'By order' is obviously written specially to plead the letter of Dr. Dobell, we shall save time in our reply by taking them as a single communication.

"*The assumed cause of our resignation.*—The first point in these letters to which we would refer is the assumed cause of our resignation. It is admitted that this rests on a disagreement between us and one of our colleagues, Dr. Dobell, whom we in our previous letter, taxed with 'assumption of authority and a spirit of interference.' To give a respectable basis to this disagreement, Dr. Dobell and the Council would make it rest on a collision between him and ourselves, upon the question of the qualification of the medical staff, while we wished to lower it, in order that one of us, Dr. Powell, might be admitted as assistant-physician. It is painful to say it, but it is solemnly true, that this argument is an entire fiction, invented to hide the real causes of dissension. It is true we are of opinion that in all hospitals it is a wise and liberal policy to allow respectable Medical Graduates of Universities of the United Kingdom to offer themselves as candidates for office, although at the moment they may not be members of the Royal College of Physicians; or that the most that should be demanded by rule is, that such candidates should be required to take up their College Membership within a limited period. But this is merely a matter of opinion; we do not consider that any man who differs from it shows either an assumption of authority or a spirit of interference, and we have never expressed towards Dr. Dobell the slightest unfriendly feeling on the subject. In respect to Dr. Powell, it is the positive fact that he has never applied for the office of physician, nor of assistant-physician, nor has ever been proposed for either post.

"The minute of the 'Medical Council' of July 3rd, 1866, to which Dr. Dobell refers, relates to a meeting at which Dr. Leared was not present; it is a minute drawn up by Dr. Dobell, but it has never been confirmed. In truth, we refused to confirm it at the subsequent meeting, because it merely represented Mr. Dobell's exclusive views, omitting all mention of any one else; it is therefore no record of the "Medical Council" at all, but a mere piece of writing by Dr. Dobell.

"*The real causes of our Resignation.*—The real causes of our resignation are what we have said in general terms in our former letter, viz: 'the assumption of authority and spirit of interference of Mr. Dobell,' coupled with certain practices of proclaiming himself, which we could not endorse. We will state now on what real grounds we assert the 'assumption of authority and spirit of interference,' taking up only those matters in which we are all concerned.

"1. One of us, Dr. Richardson, for a few months prescribed in the Hospital a medicinal substance which he considered of service in some forms of chest disease—the substance was a solution of oxygen. Dr. Dobell, on this, called upon Dr. Richardson, and requested him not to prescribe it any longer, because it was too expensive. In like manner, on Dr. Leared having desired to bring the hot-air bath into scientific use in the Hospital, Dr. Dobell again interfered. Considering that Mr. Dobell during all this time was not a member of the Infirmary Committee, we feel that these were gross acts of interference and assumptions of authority; and when we remember that whatever he himself wished to do, out of the ordinary path, in shape of diet-handbills, and pancreatic emulsion, he let the Hospital pay for his extravagant experiences, we might fairly add, if it were necessary, another term to explain his conduct.

"2. Dr. Dobell is Physician to an Institution called the National Assurance Company. It is the fact that by his direction a large framed glazed placard of this company, with his own name upon it, was put up in the most conspicuous part of the physicians' room, the room where we all prescribed; a smaller assurance bill being suspended in our private room. These placards were there for months. This we consider was an assumption of authority, which would not be tolerated by the authorities of any other hospital: it transformed the objects of the hospital from public to private use.

"3. On another occasion, without a word of communication with us, he had the patients' waiting rooms placarded with advertisements of a particular respirator. As we had never seen the respirator to know whether it was good or bad, as he had not satisfied himself whether we approved of the use of respirators at all, and as he subjected the hospital and ourselves, without our permission to the recommendation of one particular manufacturer—always a hazardous and often dan-

gerous expedient—we consider this an assumption of authority and an act of interference, which neither the pretence nor the actuality of good intention can excuse.

"4. On public occasions Dr. Dobell has gone the extremest length in making himself appear the physician of the hospital. At a public dinner, when Mr. Bass was in the chair, he positively rose to reply for the medical officers, with two of his senior officers sitting before him, and with the chairman calling for one of them. We consider this an assumption, and an assumption intensified into vulgarity by his after explanation, that he had arranged *with the Secretary* to represent the medical staff himself.

"5. His position as Secretary to the 'Medical Council' has been equally pretentious. He has summoned us to suit his own convenience, often letting months elapse without a meeting. On one occasion, when two of us met at his own time and place, he kept us waiting until other urgent affairs called us away; and on another occasion he made the minutes so exclusively his own, and so decidedly not ours—for he mentioned nobody's views but his own—that we declined to confirm them.

"6. At the last meeting but one of Governors of the Hospital, on the suggestion of Dr. Leared, a resolution was moved and properly carried, allowing a candidate for the office of assistant-physician to go to election, on condition that in twelve months such candidate should become a Member of the Royal College of Physicians. At the next meeting of Governors this rule was brought forward, with the addition that the said candidate was not to practice Midwifery nor Pharmacy. By his own admission to us, at a meeting of the 'Medical Council' (July 26th, 1867), Dr. Dobell did this act of adding a clause to the business of a public meeting that had formally closed its proceedings on his own mere motion. We need not ask whether the added clause was good or bad; we are content with asserting, that for any single individual, for any purpose whatever, to do such an act, was an assumption of authority, as unparalleled as it was unpardonable.

"Lastly.—We come to the most serious matter of all. A patient very ill was under the care of Dr. Richardson in the Hospital, and required the operation of tapping of the chest. According to the rule of every such Institution, Dr. Richardson called upon the Acting Surgeon, Dr. Powell, to perform this operation. Dr. Powell, in discharge of his duty, did so, giving to the patient the required relief. On the following Monday, Dr. Dobell, meeting Dr. Powell in the Hospital, insulted him in the most wanton manner, telling him that he had no business to perform the operation, but that he ought to have sent for Mr. Adams, the Consulting Surgeon, whom he, Dr. Dobell, had seen, who had expressed a wish to perform all the operations, and who would be very much hurt if he heard that an operation had been done by any one else. Considering that in this case everything had been carried out in perfect order, and that the patient was under the exclusive care of Dr. Richardson, we hold that this was an act of assumption and of interference on the part of Dr. Dobell that cannot be fully described, except in terms we would avoid. Further, on application to Mr. Adams, he denied having ever wished to supersede the Acting Surgeon in any way; so that the proceeding was far worse than any mere assumption of authority.

"The effect of this act is best told by the facts of experience. A few weeks after the patient above referred to had been discharged, she returned, with sudden re-accumulation of fluid in her chest, and in eminent, nay, hourly danger of life. She came again under Dr. Richardson, who saw that a repetition of the operation could alone save her. But, on consultation with Dr. Powell, it was naturally felt that no act of theirs could pass without the chance of censure from one of their colleagues; and were therefore obliged, in self-protection, to trouble Dr. Davies to come and lend his support, in the performance of a duty which should have admitted of no obstacle and no delay.

"These, gentlemen, were some of the all-powerful reasons for our retirement. They were confirmed, they were enforced, by the issue of the diet handbills of Dr. Dobell. Those handbills, finding their way into professional circles, and becoming known to us in that manner, left us but one alternative—to separate ourselves from him. The argument of your Council, that St. Bartholomew's, St. Thomas's, Guy's, Brompton, and King's College hospitals issue certain forms, bearing the names of the physicians, has no relation to this matter. The question is—do the said hospitals, for any one of their physicians, send out any such handbills as the following?—

"The Royal Infirmary for Diseases of the Chest (including affections of the heart and great vessels), City-road. Founded 1814, rebuilt 1863.

DIRECTIONS FOR DR. DOBELL'S PATIENTS.—(CLASS 10). B.

The diet of every twenty-four hours should include not less than—

8	ounces of	Cooked butcher's meat,
6	ditto	Cooked Pigeon or game.
3	ditto	Dried fish,
1	ditto	Cheese,
3	ditto	Vermicelli, or macaroni,
4	ditto	Bread or flour,
6	ditto	Rice or arrowroot,
3	ditto	Sugar,
6	ditto	Green vegetables, or fresh fruits, cooked,
20	fluid ounces	of milk.

These should be taken in divided quantities, at intervals of three or four hours, night and day, if awake.

The drink of twenty-four hours should include—

Either—Half a pint (imperial) of port, sherry, or Marsala;
Or—One pint of burgundy, claret, or other similar wine;
Or—One pint of good ale or stout;
Or—A quarter of a pint of rum, whiskey, or brandy, diluted with one pint of water.

In proportion as the power of taking and digesting fat increases, the quantities of animal food and of fermented liquors may be diminished.

Get as much out of door air as possible; but guard carefully against colds, by wool next the skin, goloshes, and respirators.

Take as much exercise out of doors as the strength will bear, without producing fatigue, and keep the skin clean and well rubbed.

Never over fatigue or exhaust the body.

Let eight hours, at least, out of every twenty-four be spent in sleep. Lie down occasionally during the day, especially after walking.

"For our parts, we think and hope that no public charity has ever before let forth such a handbill, notwithstanding the inference to the contrary conveyed in the letter of your Council. And if it has; if, for instance, St. Bartholomew's has paid for the printing of such a bill for one of its physicians, and has allowed it to go forth amongst the poor and necessitous who seek out-door relief, then we are forced to accept, either that there are poor and necessitous patients at St. Bartholomew's who can command, at least, from two to three hundred a-year; or there is a physician who can practise a grim and ghastly joke on helpless poverty; or the Hospital is pleased to promote a handbill which, passing as a begging letter, will bring the name of its favourite leech into special prominence in the houses of the wealthy. Accepting either view, we are forced to feel that, were we medical Officers, even of St. Bartholomew's, we should resign our posts.

"*The question of Attendance.*—The Council, in their letter, affirm that the attendances of Drs. Richardson and Leared were so irregular, that no less than eight meetings of Council were held in three years, to consider this want of regularity. This is a serious charge, and, in reply to it, we are obliged to give the following facts:—1. Dr. Richardson, who during the three years was a member of the Council by right, never received a single notice of any such meeting. 2. Dr. Richardson and Dr. Leared were both kept uninformed of such meetings until the latter end of last year. Then the Secretary, Mr. Smart, called, as he said 'unofficially,' on Dr. Richardson, to ask him if he would resign, not concealing for a moment that the object was to give Dr. Dobell seniority of office. Dr. Richardson thereupon stated that he had no desire to resign; that he would not be pushed out, after his long service, in that under-hand way; and that if there were any cause of complaint, it must be formally sent to him from the Committee. A few weeks afterwards Mr. Smart came again, with the motion (passed also at a meeting to which Dr. R. was not summoned) which is printed in the letter signed by Mr. Kemp. To this motion Dr. Richardson replied, asking the Committee to name *one* specific case of neglect; to which request, not a word was received in reply.

"In this case the Committee was misled by the attendance book, about which explanation is required. Some time previously the physicians, without notice, and with no compact of the kind when they were elected, were ordered to write down in an attendance book the precise times of their entering and leaving the hospital. The majority declining to do this, Mr. Birse, the Dispenser, was set on to watch the physicians and report them in the book. Very soon Mr. Birse naturally found that the duty was not exactly English in its bearings, and that to carry out a systematic espionage on honorary officers, who were considerate and courteous to him, was more than he could accomplish. In this way therefore the attendance book, just in proportion as it gave evidence of non-attendance of the physicians named, gave evidence that was unreliable.

"There remain now but two or three subjects for consideration. It is urged that one of us was present at a general

annual meeting of Governors when the election of Dr. Dobell to the post of honorary Secretary was confirmed; but it is suppressed that to oppose him would have been worse than waste of energy. Dr. Dobell affirms that we never expressed opposition to his proceedings until our letter of resignation. We answer to this untruth that some weeks before our resignation—viz., on July 26th, 1867, we told him in plainest terms *all our objections*, and offered with equal distinctness, but unavailingly, to let the past be forgotten if he, admitting errors of judgment, would withdraw in the future what to us was so offensive. The Council, again repeating Dr. Dobell, state that if we had brought the matter before them, the objectionable proceedings could have been removed; to which we reply that we considered carefully the propriety of taking the step suggested by the Council, and we felt that possibly the objectionable proceedings might thus be brought to an end; but, unfortunately, we were driven also to the conclusion that, after what had occurred, the mere compliance of Dr. Dobell under such circumstances would not warrant us in remaining his colleagues, and that if we asked for anything it could be for nothing short of his dismissal or of ours. The discourtesy with which the Council of the Hospital has accepted our resignations, and the partizan letter written, as it is said, by their order, is of itself sufficient proof of the correctness of the course we have pursued. To have remained in office for the sake of office would have been contemptible; to have put ourselves to the certain chance, as we felt, of being dismissed from office, was folly; we resolved, consequently, to sacrifice office and to retire, stating our reasons for retirement—a natural privilege to claim, and in every sense honourable. We thus left the Council still free to deliberate, and free to accept or refuse our resignations; but we left it no cause for discourtesy to us, and no reason for the reckless and *ex parte* defence which it has published for Dr. Dobell.

"In conclusion, we repudiate the accusation of any wish on our parts to injure the Hospital. For years past we have tried (we had hoped successfully) to raise it from the abject degradation into which, at an earlier period of its history, it was brought, by selfishness and quackery, to place it in its true position as a hospital of sound scientific and professional standing, and as a charity in which individual interest and caprice could find no scope for shame; and we must beg you so to qualify the intemperate criticism of your Council, as to accept our united act of resignation, not in the light of an offence, but as one of the most painful of necessities that could have been imposed upon us.—We have the honour to remain, Gentlemen, Your most obedient Servants, BENJAMIN W. RICHARDSON, M.D., F.R.S., 12, Hinde-street, W.; ARTHUR LEARED, M.D., M.R.I.A., 12, Old Burlington-street, W.; JOSIAH T. POWELL, M.D., M.R.C.S., 347, City-road, E.C.

"London, Sept. 19, 1867."

Gleanings.

EMIGRATION TO AUSTRALIA.—That there should be at one end of the world a British community so thickly peopled as that population is incessantly encroaching upon the means of subsistence; that a million of paupers are maintained at the public cost; that deaths from cold and hunger are numerous and frequent; that children of tender years are driven to labour in the fields in gangs, and are brutalized or destroyed by the process; and that in every walk of life competition is so intense that the applicant for employment is a suppliant and not a negotiator; and that, simultaneously with this state of things in the mother country, there should be one of her dependencies in the South Pacific, as large as England and Wales, as fertile as Sicily, and as healthy as Nice, craving for the superfluous capital and labour of the parent State, but craving in vain, does appear to be a perfectly inexplicable anomaly. We count our population by hundreds of thousands only, while the country is capable of maintaining millions, with a wide field for the enterprise of the restless and the adventurous in the neighbouring colonies and in the innumerable islands of the great Pacific. To capitalists, to fundholders, and annuitants, to farmers possessing either a moderate amount of money or a family of grown-up sons, to sober and industrious artisans and labourers, with a general aptitude for anything, and a pliant adaptability to the circumstances and requirements of a new country, Australia offers inducements for settlement and assurances of reward such as are presented, we will venture to say, by no other possession of the British Crown. We have shown what has been done within half the life-time of a single generation, and this will be repeated on a grander scale, and with proportionately enlarged results, during the next eight or ten years, if the mother country will annually send us 40,000 or 50,000 men and women to eat our superabundant supplies of food, to assist in the cultivation of our waste lands, to multiply the number of our industries, and to continue and extend the work which has been so prosperously commenced. Need we remind our fellow-countrymen in England that it is not these colonies alone which are benefited by emigration? The parent State reaps from it advantages not less substantial than those which it confers upon the dependency which receives the efflux of population.—*Melbourne Argus*, June 27.

THE FROG SEASON.—The frog season is now at its height. The thousands of frogs born early in the spring now swarm the marshy ground. The quantity disposed of in Buffalo is surprisingly large. The principal dealers sell easily 1200 per day, and the consumption of four hotels which have the delicacy in their bills of fare will probably add 500 to that amount. As there are several smaller grocery stores which sell daily from 25 to 50 pairs, it will be safe to say that not less than 2000 are being eaten in Buffalo every day. Already over 100,000 have been sold, and the remaining two months of the season will increase that amount to nearly 300,000, which is but a moderate quantity, considering the already large and yearly increasing numbers which inhabit the river islands and all along the shore of Canada. The best time to catch these croakers is either early in the morning, when the air is yet damp, or about noon, the hottest part of the day, when they seem to come out thickest. Persons going "frogging" prepare themselves with a stout stick about three feet long and crooked at the lower end, a basket and jack-knife, and a piece of strong cord. When arrived upon the ground, if the day happens to be a "good one," a novice will at first be bewildered by the hundreds of moving, croaking objects surrounding him in every direction, but soon recovering himself, he proceeds to his work at first bunglingly, but as his nerves become steadier so will his blows, which should be struck directly upon the head or neck and with considerable force, so as to kill completely and not put the frog to unnecessary torture. When a basketful is obtained, they are taken to the bank of the river and the legs cut off and skinned, then strung on a string and floated in the river to be kept fresh. In this manner a diligent person may kill and prepare 500 in a short time. A boy or man having nothing else to do might make 1000 dollars a season by catching frogs. There are several dealers who would readily purchase all that could be brought to them; as so far this season the supply has been far short of the demand. The article retails at from one dollar to one dollar fifty cents, per 100—*Buffalo Express.*

Medical News.

THE MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.—At the meeting of this society, held on Friday, the 6th September, in the Hall of the Faculty of Physicians and Surgeons, St. Vincent-street, the following gentlemen were elected office-bearers for the present session:—*President*.—Dr. Allen Thompson. *Vice-presidents*.—Dr. Coats, Dr. W. T. Gairdner. *Council*. Dr. Yeaman, Mr. Robertson, Renfrew; Dr. Dewar, Dr. Tindal, Dr. G. H. B. Macleod, Dr. A. R. Simpson, Dr. F. H. Thomson, Dr. Richmond, Paisley. *Secretaries*.—Dr. James Adams, Dr. Robert Perry. *Treasurer*.—Dr. H. R. Howatt.

THE German Congress of Naturalists and Physicians, which meets every year in one of the larger towns of Germany, was opened, on the 18th inst., at Frankfort-on-the-Maine. There has, this year, been established a new section *for public health*, the members of which are not only medical men, but also chemists, meteorologists, engineers, officials, and laymen. The topics this year to be discussed are:—(1), Etiology of typhus fever; (2), drainage; (3), the high rate of mortality amongst children.

THE CHOLERA IN ITALY.—According to the last reports, the disease seems much abating. From the commencement of the epidemic to August 30, there have occurred in the province of Milan 5054 (2731 males, 2323 females) cases, with 1592 recoveries and 3018 deaths, 444 cases remaining under treatment. In the city of Milan, the total number of cases

have amounted to 395, with 66 recoveries and 292 deaths, 36 remaining under treatment. In the city of Venice, the total of cases is 310, with 56 recoveries and 194 deaths, 75 remaining under treatment. In the city of Bresica the total of cases is 936, with 319 recoveries and 585 deaths. For some reason or other, the number of cases occurring in Piedmont has been concealed; but it is reported to have amounted to 12,000.—*Gaz. Med. Ital. (Lombardia)*, Sept. 9.

NOTICES TO CORRESPONDENTS.

Dispensarius.—Our statement is perfectly and literally correct that the Poor-law Commissioners have power of expelling by sealed order, any officer without trial or accusation and without the resource of appeal or investigation. It is of course presumed that they do so on what appears to them "sufficient grounds," but it is nevertheless the fact, that the Commissioners may at any moment dismiss summarily, any medical officer without assigning any reason, and that the dismissed official cannot claim as a right an investigation. It is proper to say that the Commissioners do not exercise the power to that extent, but they possess it.

Dr. Lynn, Armagh.—Thanks for the notice of Faraday. The Obituary had been published before its receipt. 2. We have already broached the question of the Senior Licentiates' and would willingly join if we could see a strong movement on the subject from those interested.

A Subscriber, Ballymena.—Certainly not.

REGISTRATION OF BIRTHS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR—Being asked by the husband of a lady, whom I lately attended in her confinement, to register the birth of his child as he was at a distance of four miles from the place of registration, which is in a country district, and he being extensively engaged in commercial pursuits could not, without expense, inconvenience, and loss of time, effect the registration, I consented to oblige him as my routine of practice often led me past both the place of registration and the registrar's residence. About ten days after the birth of the child I called at the registrar's own residence, and was informed by him that the medical attendant was not a legal person to register a birth, even though he were present at the birth. This intelligence I communicated to the father of the child, who wrote to him, enclosing stamps, requesting the necessary forms to be sent that he might sign them. The registrar replies with the usual circular, transcribing at the foot, "I cannot register your child unless you are present." The father of the child encloses the circular to me, requesting me to learn if it is impossible for the registration to be effected by deputy. He intends having legal advice upon it. Now, I would like to know if it is legal for me to register a birth when I have been present at the time of birth? Can it be registered by any deputy who has been present? Or, could it not be effected through the Post-office, at the expense of the party registering. I would like to have an opinion on the above points, as I am aware of medical men effecting similar registeries in other districts. I fear there is some spleen in the case, as the registrar resides more convenient to the lady than I who attended her.—Hoping you will oblige, I remain, truly yours,

ANTE-DISOBLIGING BIRTH REGISTRAR.

September 18th, 1867.

[THE plain meaning and intention of the Act is that the registrar shall be enabled to procure the most authentic information upon the matters required to be registered, and therefore so long as the parents of the child are to be had, it is his duty to procure the necessary information from them. The attending physician is not a proper person to register, unless he be the father, or, in case there is no parent alive, the next akin.—ED. M. P. & C.]

Births, Marriages, and Deaths.

BIRTHS.

FISH.—On the 13th instant, at Effingham House, Marquess-road, Canonbury, the wife of Robert Fish, M.R.C.S., of a son.

HASLAM.—On the 8th instant, at Croydon, the wife of James Haslam, M.R.C.S.E., of a son.

JACKSON.—On the 16th instant, at Lochgilphead, the wife of Hugh Jackson, Surgeon, of a daughter.

RUTHERFORD.—On the 13th instant, at Boness, the wife of James Rutherford, M.D., F.R.C.P.E., of a son.

SPRATLY.—On the 3rd instant, at Rock Ferry, Cheshire, the wife of S. Spratly, M.D., of a son.

MARRIAGE.

FOX—BAKER.—On the 7th instant, at Christ Church, Highbury, W. Tilbury Fox, M.D., of Sackville-street, Piccadilly, son of Luther Owen Fox, M.D., F.R.C.S., of Broughton, Hants, to Sophia Campbell, the youngest daughter of Captain W. F. Baker, R.N., of Highbury Grange.

DEATHS.

ALDERSON.—At Aslackby Vicarage, Folkingham, J. Alderson, M.D., M.R.C.S., F.S.A., of Long Rennington, Lincolnshire, aged 32.

CARR.—On the 8th instant, at the Royal Alexandria Hotel, Liverpool, W. T. Carr, Surgeon R.N.

KIRBY.—On the 4th instant, at Avon-bridge Cottage, Barford, Warwickshire, B. Kirby, M.D., aged 50,

KITCHING.—On July 17, at Adelaide, South Australia, C. Kitching, L.S.A., aged 65.

LADD.—On the 9th instant, at 9, Holland-street, Brixton-road, T. E. Ladd, M.D., aged 40.

PROPERT.—On the 8th instant, at 6, New Cavendish-street, J. Propert, M.R.C.S.E., Deputy-Lieutenant for Cardiganshire, aged 74.

THE LONDON HOSPITAL AND MEDICAL COLLEGE.

THE WINTER SESSION will Commence on October 1st, when the INTRODUCTORY LECTURE will be given, by Dr. Letheby, at 4 P.M.

The Hospital has more than 500 beds. All the Students receive Resident Appointments as In-Patient Dressers, without further payment, and all when qualified are also eligible for the Office of House-Surgeon.

The following Prizes and Appointments are open to the Students:—

A Scholarship in Human Osteology, value £20, for first year's Men only; to be awarded in January, 1868.

A Scholarship in Anatomy, Physiology, and Chemistry, value £25 for first year's Men only; to be awarded in April 1868.

The Duckworth Nelson Prize, value Ten Guineas.

A Surgical Gold Medal for Proficiency and Zeal.

A Medical Gold Medal for Proficiency and Zeal.

Three House Surgeons tenable for three or six months. Dresserships for In-patients and Dresserships in the Out-Patients' Room. A sum of £60 is awarded as Prizes to the most efficient in the latter department.

The Office of Resident Medical Officer (with Salary, and tenable for two years).

The Office of Assistant Resident Medical Officer (without Salary, and tenable for three months).

The Office of Resident Accoucheur (without Salary, and tenable for six months).

Two appointments as Clinical Assistant to the Medical out-Patients' Room, with Salary of £40 each.

All the Resident Officers are provided with board.

The hospital has wards for Syphilis and for Children, and special departments for Diseases of Women, Diseases of the Eye, Diseases of the Skin, and Diseases of the Ear.

A Prospectus giving details may be obtained on application at the College, Mile End Road, or to Mr. HUTCHINSON, Dean of the College, 4, Finsbury Circus.

Charing-cross Hospital Medical College.

THE WINTER SESSION will Commence on Tuesday, October 1st, when an Introductory Address will be delivered by E. Canton, F.R.C.S., at 3 o'clock.

LECTURES IN WINTER TERM.

Anatomy—R. Barwell, F.R.C.S.
Physiology—Morris Tonge, M.D.
Chemistry—C. W. Heaton, F.C.S.
Medicine—Hyde Salter, M.D., F.R.S.
Surgery—E. Canton, F.R.C.S.

LECTURES IN SUMMER TERM.

Materia Medica—F. W. Headland, M.D.
Forensic Medicine—F. Hird, F.R.C.S., and Professor R. V. Tuson.
Midwifery—E. Parson, M.D.
Practical Chemistry—C. W. Heaton, F.C.S.
Botany—A. Silver, M.D.
Practical Histology—Morris Tonge, M.D.

The fee for the full period of the Lectures and Hospital Practice required by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries (including the Matriculation fee of £2 2s.), is £72 9s., which may be either paid on entering, or half on entering, and the rest subsequently.

APPOINTMENTS OPEN TO STUDENTS.

The office of Registrar to the Hospital and Pathological Registrar to the School, tenable for two or three years, for the efficient performance of the duties appertaining to which the Council award an annual stipend, is open to all Students of the Hospital who have obtained their qualifications.

The offices of Resident Medical Officer, Resident Surgical Officer, and Physician-Accoucheur's Assistant, with six months' residence at the Hospital, each equivalent to a Scholarship of the annual value of £50, are awarded to senior Students after a competitive examination.

The Dressers and Clinical Clerks are also appointed from among the Students without any payment.

SCHOLARSHIPS AND PRIZES.

The Llewellyn Scholarship, the Golding Scholarship, the Governors' Gold Medal, the Governors' Clinical Silver Medal, and the Silver and Bronze Medals of all the different Classes, are open for competition to all matriculated Students.

CLINICAL INSTRUCTION.

The Physicians and Surgeons give daily Clinical Instruction at the bedside in the wards of the Hospital, and Clinical Lectures are delivered three times a week by the Physicians, Surgeons, and Physician-Accoucheur.

Clinical Instruction in Diseases of the Eye, and Ophthalmoscopic Demonstrations are given in the Ophthalmic Hospital, adjoining Charing-cross Hospital, by Mr. Hancock.

Clinical Demonstrations in Auscultation, and Physical Diagnosis generally, are given every week on such cases, both of out and in-patients, as are available for the purpose.

Practical Instruction and Demonstrations in Operative Surgery and Dental Surgery are also regularly given.

RESIDENCE OF STUDENTS.

With a view of insuring domestic comfort, as well as regularity of habits, arrangements have been made with several Medical gentlemen and others residing in the neighbourhood of the Hospital, to receive Students as inmates, and parents or guardians are advised to communicate with the Dean before determining their place of residence.

Further information may be obtained of the Dean, who attends every day at one o'clock at the Hospital.

HYDE SALTER, M.D., F.R.S., Dean.

Address.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

INTRODUCTORY ADDRESS,

Delivered October 1, 1867.

By Mr. ARTHUR BROWNE STEELE, M.R.C.S., L.S.A.

GENTLEMEN,—The first day of the *annus medicus* finds us again assembled within these walls for the purpose of commencing another Medical Session, and, in accordance with the established order of our arrangements, the duty, on this occasion, devolves upon me of inaugurating the proceedings with the customary introductory address. The task thus imposed upon me is certainly an honourable one, but permit me to remind you that it has its peculiar difficulties—difficulties which increase rather than diminish, with each recurring occasion of its performance, inasmuch as the ground about to be traversed has already been so often and so carefully gone over by preceding lecturers, as to leave little that is novel or original for their successors to select from.

This consideration must be my apology, if much of what I am about to say, so far at least as a portion of my audience is concerned, "falls upon the ear as a thrice told tale;" it will also, I trust, entitle me to some indulgence, if, in the discharge of this duty, my ability comes far short of my desire to do full justice to the responsible position I now occupy as the representative of my colleagues, the lecturers of this school.

There is an old adage which tells us, that "a fair outset is half the voyage," and it is naturally a source of solicitude to those interested in our school, that the programme of this, our opening day, should pass off, in every particular, creditably and satisfactorily, and thus afford an auspicious augury of the successful progress of our labours in the coming session. Now, much of the anxiety which might otherwise have been felt on this account is dispelled, when, on looking round, we discover so large a gathering of friends and colleagues, who have come here to give their countenance and support to our proceedings on this important and interesting occasion. The presence at these anniversaries of our fellow practitioners of the town and neighbourhood, including, as we are glad to notice, several *columni* of the school, and of those also, who, like yourself, Mr. Chairman, though not members of our profession, are nevertheless interested in its welfare, is cheering and encouraging both to teachers and to students. We thank you heartily, gentlemen, for your attendance here to-day, and we accept the compliment as a recognition on your part, and as a tribute of your appreciation of our humble but earnest endeavours to render the Royal Infirmary School of Medicine what it ought to be—a credit to the Profession, and a benefit and an ornament to the town of Liverpool. I may take this opportunity of assuring you, in the name of my colleagues, that, not only on these occasions, but at all times, we shall welcome our medical brethren, or those engaged in kindred pursuits, who may be disposed to favour our school with a visit of inspection. We have sufficient confidence in the success of our efforts to devolve the abundant resources at our disposal, to feel sure that the more our school becomes known, the wider and the stronger will be its claims to the approbation of those who are interested in the progress of medical education, and as we would put no limit to our desire for improvement, I may add that we shall always be open to fair and friendly criticism, and will thankfully avail ourselves of any suggestion calculated to increase the efficiency of our operations. We are most anxious to identify the progress and the interests of the school with those of the Medical Profession and of the public of the town and neighbourhood, just because it is to their appreciation of our labours and to their sympathy and encouragement that we must look mainly for success; and secondly, because we believe that an efficient and well-conducted Medical School is a great advantage to the resident population. It has a tendency to raise the tone of the Profession, to foster and stimulate the cultivation of the higher branches of our art; to enlarge the sphere of scientific and clinical observation; and to develop and utilize the vast opportunities which a populous community affords of extending and increasing medical knowledge and experience in every department—advantages in which the public and the Profession mutually and equally participate. It enables gentlemen resident in the neighbourhood to pursue and complete their medical studies without being necessarily separated from their families, which in many instances is a social and financial benefit of no small value. In immediate connection with this point I may allude to an objection sometimes urged against provincial Medical Schools—namely, that they tend to lower the status of the Profession, by affording undue facilities to some whose position in life would prevent them from entering the Profession if it involved the expense of residential study in a distant metropolitan town. Now, a moment's reflection must convince every reasonable person that any force this argument may have, must apply equally, and even more strongly, to the schools of the metropolis, inasmuch as the larger the surrounding population, the more numerous will be the aspirants of every grade to the dignity of professional life. But the true reply to this objection is, that the only direction in which it is safe or desirable to raise the standard of professional qualification is that of educational acquirements. That safeguard being duly provided for, any arrangement which has the effect of reducing the expenses of medical education, and which removes every obstacle in the way of those who desire to join our ranks, except that of intellectual unfitness, it is so much gain to the public good. Whatever may have been the state of things in former times, we can congratulate ourselves in the present day, on the existence of a sufficient guarantee, in the regulations of the Medical Council, under which no one can commence his curriculum either in the provinces or elsewhere, until he has given proof of learning, received a sound general education, by the production of a certificate of approval from one of the different bodies, duly authorized to hold preliminary examinations in arts. I have been requested to direct especial attention to this requirement of the General Medical Council, because, although the regulations have been in force for some years, they do not appear to be generally known, and gentlemen have, on several occasions, applied to our registrar to be registered as students who, not being aware of this necessary condition, have not gone up for the required preliminary examination, and therefore have been compelled to postpone the commencement of their curriculum. I would take this opportunity of expressing my opinion that although any one of these preliminary examinations conducted under the sanction of the universities and of the various licensing bodies, is a fair test of preliminary qualification, there is one which may be recommended in preference to the rest, as being most advantageous to the student in the subsequent stages of his career—I allude to the matriculation examination of the London University. I would strongly advise all those who have not already made their choice, to select this for their first trial of intellectual strength. There, however, remains to be answered a most serious allegation against provincial medical schools, one which, if well founded, would consign them to deserved obscurity and neglect. Only a few months ago there appeared, in a leading medical journal, the following concise, but sweeping condemnation of provincial hospitals as fields of clinical study, published with all the emphasis of large type, and with the full weight of editorial authority.

"But," says the editor, "for a thorough knowledge of his *art* the medical student will always have to resort to one of the metropolitan towns. Here alone he will find that variety of acute cases which it is necessary for him to see if he is to acquire a practical acquaintance with his pro-

fession in a reasonable time."* It is really difficult to understand how any one professing to instruct the public on the question of medical education, should have formed so entire a misconception of the actual state of these matters, unless we are to suppose, as probably really was the case, that the sources of information upon which the writer ounded his opinion, did not extend beyond the limits of the metropolis itself.

Now, although we pay a willing tribute of respect and admiration to the imperishable fame of a long list of past and present worthies, whose great achievements and priceless services to the cause of medical education, have adorned and still sustain the wide world celebrity of the medical schools of London, Edinburgh, and Dublin, we can nevertheless point to a *rôle* scarcely less numerous or illustrious, of those whose career, though fixed in the provinces, has shown that not only have they there enjoyed ample opportunities of acquiring "a practical aquaintance with their profession," but that the field of observation furnished by provincial hospitals and schools has enabled them to identify their names with some of the most brilliant discoveries, and the most useful and important improvements in the science and practice of medicine and surgery. Was it not in the Infirmary at Leeds that William Hey studied his profession with such eminent success as to gain for him the title of the Father of British Surgery. Was it not in a provincial hospital that Hodgson of Birmingham, laid the foundation of his eminence as a surgical teacher and writer? Was it not in the Provincial Medical School of Bristol that Dr. Carpenter lectured, studied, and wrote his first great work on Physiology? Was it not in the country town of York that Dr. Laycock acquired his reputation as a lecturer, which qualified him for his present distinguished position as Professor of Medicine in the University of Edinburgh? Was it not the County Hospital at Norwich that sent forth Dalrymple, Martineau, and Crosse, men whose memory is still honoured in this and every other country where surgical literature is cultivated? Are not Pritchard, Symonds, Budd, Herepath, and Swayne, of Bristol; James and Shapter of Exeter; Wiblin of Southampton; Seele and Nunnelly of Leeds; Ramsay of Cheltenham; Parker of Bedford; Jephson of Leamington; Rumsey of Cheltenham; Carden of Worcester; Paget of Leicester; Turner, Roberton, and Radford, of Manchester, all provincial men, and all men who have rendered essential service in the advancement and improvement of the science and practice of our art? And has not our own town produced Currie, Carson, Alanson, Park, and Bickersteth; and was it not in our School of Medicine, in this very building, and in the wards of the Northern Hospital, that one of our own colleagues, Dr. Waters, found means and opportunities for pursuing his elaborate researches into the minute anatomy of the lung, which entitled him to the honourable distinction of "Fothergilian Gold Medalist?" Nor can we forget that it was Henry Park, Surgeon to the Liverpool Infirmary, of the last generation, who originated, and that it was his successors in the Royal Infirmary of our own day who have revived and thoroughly established one of the greatest improvements in modern surgery, namely, the excision of a joint as a substitute for the removal of an entire limb. If time served, we might extend our catalogue by the addition of many more whose names are familiar to us as provincial celebrities, nor would it be difficult to extract from the archives of medicine abundant evidence to prove, that opportunities for scientific research and practical experience are not monopolised by the metropolitan towns, but that they abound in the provinces, and that there never has been, nor is there now, any lack of talent or industry to turn those opportunities to the best account.

I have ventured, on the present occasion, to enter a protest against the disparaging criticisms which from time to time have been directed against Provincial Medical Schools, for this, amongst other reasons, that I deem it to be most important, that those who may find it desirable or convenient, to pursue their studies in the country, should feel satisfied, as I can assure them they may—that no necessary or suitable resources will be wanting to enable them to do so with advantage and success.

On these grounds we feel justified in claiming for the Provincial Medical Schools throughout the land, the respect, the encouragement, and the support of all good citizens in their respective localities.

But while pleading the cause of the provincial schools in general, I must not omit to speak of the position and prospects of our own school in which those whom I now address are more closely and personally interested.

It is universally admitted by those most competent to form an opinion of the subject, that the efficiency and success of a medical school depend mainly, if not entirely, upon the facilities it is capable of affording for teaching practical anatomy; that branch of study which is the very foundation of all sound medical knowledge, and one which it is impossible to cultivate satisfactorily or with any hope of success in a medical school, unless each student has full opportunity for dissection. Now, we can confidently affirm that there are few, if any schools, either metropolitan or provincial, that in this respect can offer advantages superior or even equal to our own.

Our resources for providing this essential *desideratum* are in fact fully equal to the requirements of every student, and special arrangements have recently been made, including the appointment of additional demonstrators, which are calculated still further to increase and to maintain the thorough efficiency of this department.

The editor of the *Medical Times and Gazette*, in his advice to students in the choice of a school, recommends them, "especially to select a school where teaching is carried on in earnest, where no slovenly method of lecturing or of attending lectures is tolerated, but where the work of medical education is made a serious business, and where regular and punctual attendance in all the classes is insisted upon. . . . . Above all things we say seek a school where the system of *demonstrative* and *tutorial* instruction is fully developed, in addition to the more professorial courses, and where frequent class examinations are in use to test the progress of the student."

The quotation I have just read is in such close accordance with the opinions of the lecturers of this school, and describes so exactly the very points which they have for some time past anxiously and earnestly striven to render characteristic features in the educational system adopted here, that I have substituted it for that which I myself intended to have said on this subject, believing that, as the opinion of a competent and disinterested authority, it would have greater weight than any words of mine.

To secure the fulfilment of these conditions, a daily record is kept of the attendance of the students upon each course of lectures; class examinations are held frequently and regularly; the lecturer cultivates, as far as circumstances will permit, such personal intercourse with the individual members of their classes, as may enable them to watch over, assist, and guide the progress of each student in his work, special attention being paid to those who are more immediately occupied in preparing for the public examinations, and thus, an identity of interest, and a community of feeling is kept up between teachers and pupils, which gives a healthy impetus to the work, and converts that which might become an irksome toil into a pleasurable pursuit.

The wards of the Royal Infirmary, separated from this building only by the width of the adjoining street, are constantly filled with a succession of acute diseases, surgical affections, and injuries; the operations performed weekly in the theatre present, from time to time, all the capital operations of surgery—the whole constituting a field of clinical study rarely equalled, and scarcely surpassed in any of the largest hospitals in this country.

The Northern and Southern Hospitals, in the immediate vicinity of the docks and great public works and factories, furnish ample opportunities of witnessing the effects and

* *British Medical Journal*, February 9th, 1867, p. 141.

treatment of fractures and every variety of accident and injury. In the medical wards of these institutions may be seen a class of important and interesting cases, rarely met with elsewhere, namely—the special diseases of seamen and foreigners. Within a convenient distance of the School are the Lock Hospital, the Eye and Ear Infirmary, and other institutions, in which the recognised specialities of medicine and surgery may be studied. With all these means and appliances, no diligent and earnest student who joins this School need apprehend any deficiency in the suitable and necessary resources for the successful prosecution of his studies. During the autumn recess a careful revision has been made of the scale of fees, and of the curriculum of the lectures, which has resulted in changes of a financial character, and in alterations in the hours fixed for the delivery of some of the courses which it is believed will conduce to the increased comfort and convenience of the students.

The Museum of Anatomy and Pathology has been entirely re-arranged under the able superintendence of Mr. Evans, the honorary curator. It has been enriched by the addition of a costly series of very beautiful wax models, the munificent donation of Mr. Bickersteth. The Students Library has been augmented by the liberal gift of Dr. Cameron, of several standard works in the leading branches of medical literature—presentations which may be regarded not only as valuable additions to our *matériel*, but as pleasing evidence of the interest taken by individual lecturers in the welfare of the School.

The most satisfactory and conclusive proof of the success which has attended the efforts made during the last few years to raise the character, and to increase the efficiency of this School, consists in the fact that the number of students has year by year gradually and progressively increased ; the result of our labours, as shown by the proportion of our men who pass creditably through the ordeal of the public examinations is encouraging, and on the whole, we feel every assurance that a bright prospect of extended usefulness and growing prosperity lies before us, and that as time passes on, the Royal Infirmary School of Medicine will rise higher and higher in the estimation o the Profession and of the public in this great community.

It is impossible to speak of the improved condition of our School without being reminded of the invaluable services of one member of the staff, whose official position imposes upon him numerous and important duties of detail, the faithful and prudent discharge of which are essential to the proper working of our entire machinery. I need scarcely say that I allude to Mr. Harrison, the Registrar, whose courtesy, unwearied industry and zeal in your service, entitle him to the highest commendation, and the warmest thanks of all who are interested in the success of our labours. Nor should I omit, on this occasion, thankfully to acknowledge, in the name of my colleagues, the kind and liberal co-operation at all times afforded by the chairman and the committee of the Royal Infirmary in carrying out alterations and improvements in our establishment.

And now, gentlemen, let me address myself more particularly to those for whom this annual ceremonial is especially provided.

We recognise with pleasure the familiar faces of the students of former sessions who have returned to resume their studies, after the interval of repose afforded by the summer recess ; in congratulating you, gentlemen, on your return to the scene of your early labours, we would exhort you to renewed energy and sustained perseverance, in order that you may pursue to a creditable and successful issue the good work begun here, and in which you have already made such progress, as to inspire your teachers with the sanguine expectation, that you will ultimately reflect no discredit upon them, upon yourselves, nor upon the school in which you have received your medical education.

To those of you who have been successful competitors for the prizes and certificates which are about to be distributed, we offer our sincere congratulations, and would remind you that you have thereby not only gained honour for yourselves, but have also done good to others, by setting an example of industry and perseverance to your fellow students. Allow us, gentlemen, to entertain the satisfactory assurance that the feelings of pride and gratification with which you will receive these early honours, may be enhanced by a firm determination on your part to persevere in the creditable course you have hitherto pursued, and thus justify us in regarding these *trophies* as the first-fruits of a long and successful career of earnest devotion to the duties of the honourable calling in which you have engaged.

To those amongst you who have competed unsuccessfully, we have words of consolation to offer. We would assure you, that although on this occasion you have failed to secure the immediate object of your ambition, yet, so far as you have worked earnestly and conscientiously, your defeat, while it enhances the triumph of your more successful competitors, so far from being a disgrace to yourselves, bears honourable testimony to your desire to take part in an intellectual conflict which in itself is creditable to all who are engaged in it. We would recall to your recollection the fable, so familiar to our schoolboy days, of the old man, who, on his death-bed, bequeathed a rich treasure to his sons, which he led them to believe was hidden in a certain field, withholding, however, any indication of the precise spot in which it was deposited. The young men, you remember, dug carefully over the whole ground in search of the hidden gold, and although they did not succeed in finding it, they were amply rewarded by the increased fertility of the soil upon which they had so diligently, and, as it appeared to them at the time, so fruitlessly laboured. And thus, gentlemen, it will prove in your case, although disappointed in your expectations of a prize, the additional labour you have expended in the competition will bear fruit in due season, and your reward although delayed, must not be regarded as altogether lost.

We hail with satisfaction and kindly greeting many new faces—additions to our ranks—of those who come amongst us for the first time, and who this day commence their career as Medical Students. To you, gentlemen, as strangers we accord our warmest welcome, we hold out to you the right hand of fellowship, and cordially invite you to join us as fellow-workers in the arduous, but honourable pursuit of medical science.

We congratulate you upon your choice of a profession which will qualify you for a good position in society, and opens out to you a career of unlimited usefulness to your fellow-men :—

> "A wise physician skilled our wounds to heal,
> Is more than armies to the country's weal."

A profession, gentlemen, which although it may fail to satisfy the ambition of those who regard the acquisition of wealth and the distinctions of rank as the first objects in life, has, nevertheless, rewards and privileges to confer upon those who are faithful to its claims of a higher value, and of a more lasting character, than any which either riches or titles can bestow.

"The noblest study of mankind is man," and the immediate object of our Profession is to analyse man; to become familiar with his organization in health; to admire the wonderful adaptations of means to ends in the operations of nature in his economy; to trace the effects of disease upon his system; to detect the erring organ; to know the appropriate treatment, and to carry it out with success; and thus its followers are enabled by the light of reason vouchsafed to them, and by the accumulated experience of ages, to walk humbly in the steps of the Great Physician, and to go about doing good and healing all manner of disease among the people.

Next to the culture of his immortal soul, what occupation more ennobling, more self-rewarding, more god-like, can engage the mind of a being made in God's own image?

Such being the high aim of the calling in life which you

have chosen, it can scarcely be necessary to insist upon the great responsibility laid upon you, to neglect no available opportunity of qualifying yourselves for the proper discharge of its important and almost sacred duties. To your keeping, as Medical Practitioners, will be committed the safety and comfort of families or of individuals in their hour of peril and suffering, and upon the wisdom, discretion, and experience which you may be enabled to bring to bear upon the exercise of your functions, even life itself may, humanly speaking, often depend.

It is well that at the very outset you should clearly understand that the study of medicine is difficult and laborious, demanding for its successful pursuit nothing less than the entire devotion of all your faculties and energies, and presenting obstacles which can be overcome in no other way than by steady application and sheer hard work. "Let no man," wrote Sir Benjamin Brodie, "persuade himself into the belief that he is to be carried forward by what he may be pleased to call the force of genius. The most retentive memory, the quickest perception, nay, even the soundest judgment, will of themselves lead to no grand results. For these, not only labour is required, but it must be persevering labour;" not spasmodic exertion for a few days followed by idleness by as many more, for, as a rule, rapid strides then much rest will not succeed; the slow, but persevering tortoise reached the goal before the hare, who was over-confident of the speed she could exercise if she were required to do so, and this fable learned in the nursery conveys a moral lesson which the philosopher need not be ashamed to learn.

We do not of course deny the necessity for a certain reasonable amount of relaxation, but even this must be so regulated as never to interfere with your appointed duties; we would especially advise you altogether to avoid, or at least to be ever on your guard against the allurements of all those amusements which are in themselves of an absorbing nature. Set your face as a flint against every temptation to join in parties of pleasure which would cause you to miss a lecture, to interrupt the progress of a dissection, or in any other way to break in upon the systematic course of your studies. Take care that you can always feel that you are driving your work, and not that your work is driving you.

If any of you, gentlemen, should feel that he has it not in him to make this necessary sacrifice, it would be better for him at once to turn aside to some less arduous though probably less honourable occupation. And one in which the possibility of incompetence or failure involves consequences of a less serious and responsible character. To this appeal, however, made in all earnest sincerity, I trust there will be no response, and that none of you having once put your hand to the plough will desire to look back.

Be neither discouraged nor dismayed if at first the variety and complexity of the subjects you have to deal with appear confusing and overwhelming; it is the same with all at the commencement of their studies; in a very short time difficulties which once seemed insuperable, will one after another disappear in the face of determined industry and perseverance. Remember, as I said in the early part of my address, "a thing well begun is half done"; if you only resolve to work with a will during your first session there is little fear of your falling behind in future years,

> "There is a tide in the affairs of men
> Which, taken at the flood, leads on to fortune,"

And it is not too much to say that with many, perhaps with most of you, now is the turning of the tide; you are about to enter upon the serious business of life, and the manner in which your time is occupied during the next few years of your student life will materially influence, and may even altogether determine your future destiny. If you prove to be diligent and successful medical students we may predict, with tolerable confidence, that you will ultimately become diligent and successful medical practitioners; on the other hand, if, during this period, you waste or mis-spend your time, failure and disappointment will almost certainly await you, and you will have reason for regret and self-reproach for the rest of your days.

The opportunities for acquiring the elementary knowledge, which is the only sound basis of future professional reputation and success, are within your reach only so long as you remain in the school; it is probable, nay, almost certain, that any one of you will be a better anatomist, a more proficient chemist, more familiar with the elements of physiology, and with the first principles of therapeutics, more conversant, in short, with the theoretical details of the science when you leave the school than at any future period of your life. It is true that you must continue to be students long after you have thrown off the discipline of the schools, still there is much that is essential to be acquired now, and which, if neglected, can never be made up for by subsequent efforts, however anxiously and zealously put forth:—

> "Who seeks and will not take when once 'tis offered,
> Shall never find it more."

Any assistance which may be necessary in directing you as to the best method of regulating your studies in detail, you will, I am sure, obtain from the lecturers in their respective departments. Some general recommendations on matters which can be more conveniently alluded to on an occasion like the present, may nevertheless prove useful for your guidance.

Let me, first of all, strongly advise you to adopt the curriculum of study laid down by the examining bodies, a summary of which you will find in the prospectus of the School.

Be regular and punctual in your attendance upon lectures, for oral teaching possesses special advantages of its own which cannot be supplied by any other mode of study. Besides which, we know, as a matter of experience, that as a rule, those students who attend lectures most regularly are the most industrious and successful in all other departments. I would particularly urge you not to neglect to avail yourselves to the utmost of the class examinations, of the value of which I have already spoken. Any doubts which you may now entertain of the paramount importance of accustoming yourselves to the categorical mode of teaching, I can assure you, will be speedily and effectually dispelled, when the day arrives on which you will have to present yourselves before a Board of Examiners, from whom you can scarcely expect to receive quite so much indulgent forbearance as you may always look for at the hand of the Professors in the class-room. I would recommend you habitually to take notes of the lectures, however brief, and even, if not always, with the intention of transcribing them, yet as a means of enabling you to acquire a facility of fixing your attention, which is one of the first difficulties the student has to overcome. Cultivate habits of observation by losing no opportunity which presents itself of examining pathological specimens in the dead-house and the dissecting-room, and by noticing the symptoms and watching the progress of diseases and accidents in the wards of the hospital, or wherever you may meet with them. Do not limit your reading to the text-books and to strictly medical treatises, but avail yourselves of the means of mental relaxation and literary polish afforded by the perusal of such books as Brodie's "Physchological Studies," the Duke of Argyle's "Reign of Law," Brown's "Horæ Subsearvæ," and other similar publications, which, from the fascinating interest they possess for the philosophic reader might be called the novels of scientific literature. Avoid the too common mistake of looking forward to the examinations of the Hall and College, with a continual and uneasy apprehension, and, what is even worse, regarding your passing these much dreaded ordeals, as the consummation of your highest ambition, and as the final aim and object of all your labour.

It is right and proper that you should adopt the necessary means to prepare yourselves for these tests of your competency, and the very best means you can adopt is to pursue your studies steadily and systematically from the commencement; doing your work thoroughly, avoiding

anything like superficiality or the parrot learning, so characteristic of the now happily, almost obsolete system of "grinding," as contrasted with the sound and solid foundation of an honest, conscientous course of study.

Let the real stimulus to exertion, and the controlling principle of your student life, be the consideration that you are qualifying yourselves not simply to satisfy this or that examining board, but to qualify yourselves for the actual practice of your Profession. Work as if entering on a course in which to be successful your life-long energies must be engaged, and you need not fear the ordeal of an examination.

For the encouragement and consolation of any who may feel apprehensive that they may fail in their struggle with the difficulties before them, let me repeat the words of Sir Walter Scott, who at the close of a long life thus testifies :—"I have rarely seen that a man who conscientiously devoted himself to the studies and duties of *any* profession, and did not omit to take fair and honourable opportunities of offering himself to notice when such presented themselves, has not at length got forward. The mischance of those who fall behind, though often flung upon fortune, more frequently arises from want of skill and perseverance. Life may be compared to a game at cards ; our hands are alternately good or bad, and the whole seems at the first glance to depend on mere chance ; but it is not so, for in the long run the skill of the player predominates over the casualties of the game."

In deciding upon medicine as the subject of your study, you have undertaken nothing which energy and perseverance, and upright and honourable conduct, will not enable you to accomplish ; and although not every one of you can hope to become a Hunter, an Abernethy, or a Brodie, yet any one of you may, if he so will, attain sufficient knowledge of his Profession as will enable him to earn an honest independence, and to secure a measure of success sufficient to gratify a reasonable ambition.

"Lives of great men all remind us,
We can make *our* lives sublime,
And, departing, leave behind us
Footprints on the sands of time."

One parting-word of exhortation to students, senior as well as junior, and I have done.

While resolving to neglect no creditable means, and to spare no laudable efforts, to secure success in your progress, first as students, and afterwards as Practitioners of Medicine—be ever mindful, in both capacities, to cultivate a gentlemanly bearing, a high sense of honour, a tender conscience, and an unswerving adherence to the path of rectitude, in all your dealings with your fellow-students, your brother practitioners, your patients, and your fellow-men in every class of life.

To thine own self be true,
And it shall follow, as the night the day,
Thou canst not then be false to any man.—*Shakespeare.*

Your true mission is not only to become skilful and accomplished Practitioners, but, under all circumstances and in every position, to prove yourselves what I am sure you all desire to be—Christian gentlemen.

Original Communications.

SURGICAL COMMENTARIES :

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. VII.—CURSORY REMARKS ON DISEASES OF THE SKIN, AND ON INJURIOUS APPLICATIONS TO THE SURFACE, AS INTRODUCING REMARKS ON SYPHILIS.

HAD the plan of these commentaries been such as to involve discussions on all subjects, the next in order would have been diseases of the skin : thus following the arrangement suggested by the law which regulates the sites of diseased actions. To do this, however, at all satisfactory, would have required more time and space than are at my disposal, or consistent with the restrictions proposed in the introductory paper.

I must, therefore, content myself with a few general remarks, which will lead me not unnaturally to a subject on which I shall have something more to say. Diseases of the skin, as they are called, except as regards their outward and visible signs are, *as the rule*, according to my principles, not diseases of the skin at all. To borrow the language of John Hunter, somewhat differently applied, they are diseases *in* the part, rather than *of* the part. As the rule, I repeat they present a wonderfully multitudinous series of examples of tendency to the surface, and illustrate by outward and visible indications, various kinds and combinations of disturbed functions within. But although this is true enough as to their ordinary relations, there is no reason why injurious influences may not be applied to the skin, as well as to any other organ, and there produce the reactions of disease.

It is, however, not always easy to obtain a pure case of this kind. Poisonous bites, stings of insects, counter-irritants, burns, scalds, lacerated wounds, may be so considered, but then if either of these occur in any intensity, the whole system becomes disturbed. Perhaps, all circumstances considered, chimney sweep's cancer is as pure an example of a disease of the skin in its *commencement* as any, but when I have to speak of that disease, there will appear some uncertainty on that point. Even scabies has such a large family of intimate relation, that in certain cases nothing, as Dr. Bateman observed many years ago, is more difficult than the diagnosis. Then as to what are called local applications, there are, in my view, no such things in the restricted sense in which that term is generally used. I once wrote a book on certain forms of cutaneous disease (Porrigo, &c.), which are notoriously often intractable, and generally treated by applications to the surface, to show that when they were treated by simple cleanliness and more attention to the general health, they became very tractable. The book, however, sold so rapidly, and I got so many patients, that I was in danger of being specialized as a skin doctor, so I never printed a second edition. The large field of observation afforded me by the public institutions to which I was then surgeon, had shown me the very great importance of additional care, gentleness, and so on, in removing and avoiding all irritation to the surfaces affected. The results of such cases in emphasizing the importance of removing all sources of irritation, led me to more careful observation of the effects on other diseases, and, as I believe, with the effect of removing a good deal of error with regard to their nature and dependencies. The details of the constitutional treatment recommended in the book, of the diseases described, was borne out not only by the institutions with which I was officially connected, but also very remarkably by the history of the Blue Coat School.

Now, of course, injurious matters may be applicable to the skin itself, and very remarkable examples of it occur in the reproductive organs of both sexes. Many of these are the sequences of sexual intercourse. This leads me to say something on the so-called syphilis, and on the subject of ulcers in general, derived from, or sequent on, the intercourse in question.

In a former paper I sketched briefly what I believed to have been the state of the question as to the nature of spyhilis and its relations to mercury, at, and sometime subsequent to, the time of John Hunter, and the obscurity in which these relations were involved. Had Hunter reasoned on this subject with the same caution which he seems to me to have done on all others, he would, I think, have avoided arriving at conclusions which further experience forbids us to regard as proven, as not logically deducible from the premises. In determining the entity of syphilis, he appears to me to have overlooked some important points, and to have regarded some things as peculiar and charac-

teristic which are common to other morbid phenomena. Whatever may be the intrinsic nature or the special character of syphilis, it is impossible to deduce either, from the external and visible appearances with any absolute security.

I must here remind the reader of a position in the last paper, viz.—That it by no means follows that because the visible effects of two poisons may be undistinguishable, that they should therefore be pathologically identical, or that they must result from the same form of matter. This may or may not be—I assume neither. My own experience, which for many years was probably as extensive as most surgeons in London, obliged me to concur with those who deny that there is any ulcer of so specific a character as shall enable a surgeon to distinguish the so-called syphilitic ulcer from others which occasionally occur in the reproductive organs, under circumstances which give no colour to the supposition that there has been any connection with impure intercourse.

First, and most remarkable perhaps, there are sores which are entirely sequent or sexual, but which certainly occur between two persons, in neither of whom is there any disease, and which do well without any treatment, except cleanliness and avoidance of local irritation. Then there are sores of nervous appearance, which occur in connection with the irritable urethra, and which seem simply a determination to the surface. I have seen these sometimes exactly representing the characters of a so-called syphilitic sore, and get well by no means so favourably as by quiet living, and the passage of a bougie—perhaps two or three times. I recollect a gentleman who was very much teazed in this way, until he was treated for irritable urethra, in addition to the careful living which he had previously enjoyed. I need not mention the extreme importance of not ascribing specific characters to ulcers that may not be so, especially where a man connects with such a disease the idea that he must employ mercury as a specific. The error has arisen not only from the foregoing assumption being always in a given case insecure, but also from an imperfect induction of the facts in relation to sites of diseased actions. For example, the succession of sites occupied by the so-called syphilis, and which have been held conventionally as more or less characteristic, are certainly those which are occupied by other diseases, and never more remarkably than by that state of constitution produced by mercury, and in cases where there was no reason for supposing the occurrence of syphilis, but where mercury has been freely administered for other diseases, in fact for inflammation.

As to the speciality of the syphiltic virus, that question is not at all affected by anything in this paper. The questions mooted here, are—1st. Whether the external and visible signs of the so-called syphilis are sufficiently characteristic of that or of any one specific poison ; and 2nd. Whether, the so-called syphilis is a disease for which it is necessary or expedient to employ mercury *as a specific.* I put these words in *italics*, because there are many occasions in which we employ mercurial preparations, with no idea of producing what are called "constitutional affection" by the mineral. In my *investigations* on this subject, I have very commonly withheld mercury altogether, because, in the opinion of others, it might be said to fog the conclusions. With regard to the first question, I am of opinion that there are no external phenomena which are sufficiently distinctive to be identified as the result of specific virus. The grounds of this opinion, which in my mind have all the force of a conviction matured by facts, which admit of no other conclusion, are that, I have seen such results, where I could not only obtain no evidence of syphilitic or indeed any other poison, the result of sexual intercourse ; nor obtain any grounds on which I would, with any reasonable probability, build such an hypothesis. Convictions are not made up from such cases, but the repeated impressions produced by many years observation ; but I may briefly allude to one or two of the class of facts which I have on my mind. The first class of cases are those whose habits may well induce the suspicion of impure intercourse, in some cases denied, in others admitted as probable. A young gentleman of this sort had a sore underneath the prepuce, pronounced by a very eminent surgeon to require mercury. I pleaded the young fellow's general appearance as being unfavourable to the use of mercury, and that I believe it would be unnecessary. However, under the influence of fear he left me, determined to take mercury, but circumstances interfered with his being able to do so. He therefore contented himself with the treatment I had recommended, and in about three weeks he was quite well. A man received a violent mental shock which caused him to faint, the reaction was so violent as to disturb the brain, and he was treated for inflammation of the membranes of the brain by mercury, and got well. After a time, however, spots appeared on the skin, with sore throat. He now consulted an eminent surgeon, who, regarding his case as syphilitic, again gave him mercury, when, after a time, he was said to have been well. After a few months he had a swelling on his forehead, and subsequently necrosis of a portion of the os frontes ; he now consulted an eminent physician, who again treated him by mercury. Finding himself no better from the treatment, he came to me as a patient in the dispensary. I had no difficulty in recognizing the case as one which I had before seen, the result of mercury, but I feared the result, as I suspected disease of the liver. I treated him by a plain nutritious diet, occasionally soliciting biliary secretions with success by mild doses of aloes, warm bottles, &c., but the poor fellow, whose condition was materially improved, could not pay for his lodgings, and so went to his parish. Here he was salivated again for the last time. As I had requested to know the result of the case, when he died they sent to me. I examined the body ; there was no disease beyond that of the bones of the forehead of any internal organ, except a small shrivelled condition of liver. But I could multiply these sort of cases were it necessary. The disposition to regard sores occurring in or near the reproductive organs to be syphilitic, or, at least the result of sexual intercourse, is too common. I recollect a gentleman consulting me in the utmost state of alarm for a sore, on whom an eminent surgeon had tried various remedies without effect, or with only that of producing a slough. This led him to apply nitric acid, with the alarming announcement that if that did not do, there would be no remedy but excising the sore. This alarmed the patient, and he came to me. I participated so little in his alarm that I was very nearly losing his confidence. The sore exhibited a sloughy surface, with hardened edges ; he had had no impure intercourse, but his wife was subject to leucorrhœa. He was much out of health, and my treatment was entirely directed to amend that condition. I elaborately guarded the sore from all irritation by a circular cushion, defending the surface by lint dipped in oil to prevent it adhering. In a short time the ulcer gr ually healed, and although that is now some years since, he has had no return of his complaint.

Volumes might still be written on the subject. I can only briefly state, in what I suppose would be a practical form, the result of the whole enquiry. Taking the facts only on which all agree, whether those observed in my own experience, or that of other people, and stating only the conclusions that appear to me to be logically deducible from them, I would observe that, as regards the *speciality* of the syphilitic *virus*, I have no opinion to offer, because I know of no facts on which I could logically prove it on the one hand, or deny it on the other.

If I am asked if syphilis or its effects are specific, I demand in reply, first, what I am to understand by the term specific. My idea of a specific disease would be that of a disease which presented such an appearance, and (subject to demonstrable interferences only) pursued such a course as to distinguish it from any other disease, or at least any disease with which I was acquainted. In this sense I have no proof whatever that Syphilis, as it is called, is a specific disease. As regards its external and

visible signs, I see cases undistinguishable from it, where by no violence of hypothesis can I trace the supposed sources of this disease. If I regard the sites occupied by it, I see nothing peculiar to it, but, on the contrary, quite enough to show me that it obeys a very general law, as regards the sites of diseased action. Inasmuch as this is merely a decision of not proven, as regards the specific nature of the disease, it is, of course, only a negative conclusion, but in my view it is of the very greatest importance in the treatment of this and a number of other diseases. I think it not too much to assume that a very large part of the early teaching from the practice in the so-called syphilis, has resulted from many cases having been regarded as syphilis, or some specific disease, where, had the evidence been more carefully weighed, would not have justified such a conclusion. On the other hand, I could not deny that it is a specific disease, as regards the intrinsic nature of the force, or veins, by whatever term you prefer, whence it may arise, because I feel certain that the phenomena of poisonous and other injurious influences do, in so far, observe a common law, that the individuality of a given force cannot be safely deduced from its external and visible manifestations.

It appears to me also that much of the difficulty which clouds, or which has clouded, the investigation of syphilitic disease, and especially in the hands of those who have determined views as to its specific nature, there has been a great tendency to conclude that a specific disease implies the necessity, or gives colour to the idea that it must require a specific remedy. I would not be so presumptuous as to say that this may never be, but I feel certain that there is no necessary relation between the two ideas. That most extensive disease, the small-pox, comes perhaps nearer to what we intend by the term specific than any other disease, and yet there is no disease which has so emphatically proved to us that whether in preventive or curative measures, everything depends on an availing reliance on the general conservative forces of the body, supported by sedulous attention to the general health, and involving no idea of any kind of specialty whatever. That in many cases the secretions of the female's organs prove irritating to the reproductive organ of the male is, I think, indisputable, and that the result is, in many cases, ulcers and other phenomena which, under different circumstances of care, cleanliness, or independently of such precaution, assume a great variety of external characters, and amongst others, very undistinguishably, those ascribed to syphilis, and in cases where there may be nothing on the female that we can recognise as disease.

That of course a similar series of phenomena are more likely perhaps when the secretions are unhealthy may be admitted.

It is also, I think, clearly established that both in cases where there is tangible disease in a female as well as where there is no tangible disease, that whether from cleanliness, accidental, greater or less, contact or other cause, the facts of experience show that the prostration of irritation or disease may from the same source affect some persons whilst others may escape.

I feel also perfectly certain that very many sores occur on the reproductive organ in connection with irritable urethra, both after intercourse as perhaps an exciting cause, and without any intercourse whatever, simply as a result of determination of irritation rather to the surface without, and further, that these sores are variable in character, one of these characters being that usually ascribed alone to the primary syphilitic ulcer. That highly useful as mercury may be in many states of the œconomy, I do not believe in the necessity of that mineral as a specific in the cure of the ulcers so-called syphilis. That it may be useful in connecting certain secretions in ordinary reaction in torpid organs may be admitted, but not more in this than in other cases, nor will any reference to the kind of ulcer. As an excitant of secretion it, like most other medicines, is useful more I think in putting people on curable conditions, in other words, removing conditions which impede the action of the natural laws, than from any extensive relation to these or any other diseases.

If you accompany mercury in any case, by combinations, which interfere with the natural laws, that is another thing, and has been, I suspect, a fruitful source of much of the error and obscurity that has hung over the nature of ulcers occurring on the reproductive organs

The facts noted in the preceding commentary have shewn the caution necessary in determining that the ordinary actions or effects of this or that poison to be characteristic of that force. On the contrary; those facts suggest that many injurious influences act in obedience to a common law; and that their more ordinary effects when contrasted with their diversified and unexceptional results, are referable to proximate similarities of condition in some cases, and in others to such interminable varieties of conditions, which may result from different degrees, or mode of administration, is in variable state of the organisation.

Looking at the whole subjects from this more general point of view, tends, I think, to diminish the difficulties which no doubt, are inseparable from the question as to the real nature of syphilis and points more clearly to more accurate modes of investigation in teaching us to divest ourselves of preconceived opinions. There is no question in my mind as to law which regulates the cites of diseased actions, none as to the diversified exemplifications consequent on laws of interference; nor any, that as regards syphilis or by whatever serve to designate that series of phenomena that both mercury and it do observe a very striking similarity in the cites occupied, and in the order of the occupation—skin, glands, mucous, membranes, periosteum, and bones.

The principles on which I conduct the treatment of the so-called syphilis are in harmony with the views which I have endeavoured, though I fear, imperfectly to develop. I have no idea of any specific treatment. An injurious influence has been brought to act on a surface which may or may not affect the whole œconomy. The remedy, whether local or constitutional, is in the main conducted precisely on the same principle, viz.—that of removing all interference with the natural forces of the œconomy which have always a tendency to limit an agency and to repair it. This, as regards the surface of the ulcer and its immediate vicinity, is to protect it by all possible means from any irritation, whether chemical or mechanical; to keep the circulation of the part undisturbed, and the position most tenable to repair, by which I mean horizontal. All friction by the shirt or other linen, all irritation from lint or other foreign body should be avoided as much as possible. The most *scrupulous* cleanliness, as often as any material quantity of secretion, renders it necessary, and the smallest dressing of any kind, where the discharge is moderate, and only covers the surface, when cleansed right and properly, it is by no means a bad dressing. If the discharge be irritating, the addition of olive oil after cleansing is soothing, and defends the adjacent skin; but in ordinary cases, the less dressing the better. The general treatment should be strictly on the same principle. Anything like congestion in any organ should be relieved by gently exciting its secretions. The diet will vary, because there is an interminable variety in the conditions of persons affected with this class of disease, embracing all from the most temperate to the most dissolute, comprising all sorts of constitutions, and almost every variety of condition; but it is impossible to state any general treatment that applies specially to these diseases. My general plan of constitutional treatment may be gathered from the next commentary, which will be a sort of supplement to that in which I treated of the general health. Some surgeons have great faith in washes and ointments of various kinds. I do not say they are never useful; my own experience induces me to distrust the necessity of them; but they ensure the patient, who is often anxious to do something to the part. I do not say that the treatment in every complication of cases, will be *always* successful in *hospitals*, and especially in the foul wards as they are termed. Our hospitals are in many respects very excellent institutions, but he can have been

but a very superficial observer of the requisites for investigating disease who has not seen reason to lament many defects, and especially in relation to those who are endowed with such ample means. There is, however, a prospect of better things, and there is at least a beginning to remedy a defect of which I urged the necessity many years ago, I mean houses of convalescence. It is absolutely impossible to reason securely on the nature of a disease under conditions which are all but prohibitory of thoroughly hygienic conditions, much less to say whether it is a curable disease or otherwise ; but I am not writing on the constitution of our hospitals, whether commercial or scientific ; I have elsewhere said a good deal on the subject (see the "Life of Abernethy"), and it was very satisfactory to me, who had been very much alone in my views (I beg to mean entirely), to live to be told by Sir Benjamin Brodie that "he perfectly agreed with me in all I had said in the 'Life of Abernethy' on the hospital system."

CASE OF OBSTINATE SUPPRESSION OF URINE DURING CHOLERAIC REACTION RESULTING IN URÆMIA AND DELIRIUM CURED BY THE SPINAL ICE-BAG.

Communicated by JOHN CHAPMAN, M.D., M.R.C.P.
PHYSICIAN TO THE FARRINGDON DISPENSARY.

My friend Dr. Allen of Brighton, has recently placed in my hands the particulars of a case of cholera characterized by persistent suppression of urine, which seemed likely to prove fatal, and which he treated successfully by means of the spinal ice-bag. The case is at once interesting and instructive, for it affords a strong proof of the truth of the doctrines concerning both the nature and treatment of cholera which I have propounded, and as it is reported by an impartial witness, it will, I hope, be duly considered by those readers who are striving to ascertain the essential nature and most efficacious treatment of this terrible disease. The following are the facts of the case narrated to me by Dr. Allen :—

Mr. K——, of Brighton, was attacked last December with violent diarrhœa, vomiting, and cramps in the stomach and limbs, attended with intense pain. As the disease advanced the evacuations assumed completely the "rice water" character distinctive of cholera. The eyes were sunken, the complexion and general surface of the body became dark, the fingers and nails were purple ; the pulse was so weak as to be almost imperceptible ; there was total suppression of urine, and intense thirst. In short there were, as Dr. Allen said, all the symptoms of "Asiatic" Cholera. During the administration of opium and stimulants which he prescribed, all the symptoms, except that of the arrest of the urinary secretion, began to subside at the end of the second day. Notwithstanding the use of diuretics of all kinds, the urine still continued suppressed at the end of a further period of 52 hours ; and this condition was followed by the usual phenomena of uræmic poisoning, including a urinous smell of the breath, hiccough, and delirium—making the case apparently hopeless.

An ice-bag was then applied along the lower half of the spine, and was repeated from time to time. In half an hour after the first application, the patient voided nearly half a pint of urine, loaded with albumen. Two hours afterwards he passed a pint, and during the next twenty-four hours considerably more than the usual quantity of urine, with a gradually decreasing quantity of albumen. From the time the ice was first applied, the patient began to improve, and he continued to do so steadily until he had completely recovered.

I will add a few words by way of comment on the facts of this case.

First.—It is to be observed that it occurred in December, a month during which cholera is usually unknown in England, and in the town of Brighton which, I believe, was considered to have been wholly exempt from cholera during the summer and autumn of 1866. It was therefore one of those cases of so-called "Asiatic" cholera, many of which have recently been published in the medical journals, in which the disease originated spontaneously ; and the fact of its spontaneous origin, or rather its origin by agencies always present, at once confirms, and is explained by, the doctrine set forth in the chapter of my work on "Diarrhœa and Cholera," entitled—The Causes of Cholera.

Second.—The chief treatment of this case until ice was applied, consisted in the administration of opium. Now, according to the high authority of Professor Maclean, although in the premonitory stage of cholera, "opium in combination with a stimulant is often of the highest value, if persevered in it is a dangerous remedy, inducing fatal narcotism, or, *at the least, interfering with the functions of the kidneys, and so leading directly to uræmic poisoning.*" In the same letter to Professor Aitken, from which these words are quoted, Professor Maclean adds, "suppression of this secretion [urine] is most to be dreaded where opium has been too freely used in the treatment."* In the case in question the results of treatment by opium and stimulants, illustrate and confirm Professor Maclean's statement : excepting the suppression of urine, all the other symptoms began to subside at the end of the second day ; but uræmic poisoning ensued and threatened to prove fatal. Of the several alarming symptoms of cholera, suppression of urine is the one which usually subsides last, whether the patient be treated by drugs of any kind, or whether he be left to the unaided power of nature ; but whatever be the influence of opium in the early stages of the disease, it seems impossible any longer to doubt, in face of the evidence now accumulated, that the administration of that drug during the later stages is attended with great danger, and especially that it exerts a distinctively appreciative influence in prolonging the suppression of urine.

Third.—As it is admitted by the most reliable authorities, that in cases of fully developed cholera, at all events, the use of opium is dangerous, and that by prolonging the suppression of urine it leads to uræmic poisoning, the question arises—what is the *modus operandi* of opium when given to cholera patients, and especially by what agency does it prolong the suppression of urine ?

The action of opium on the animal organism is probably much more complex than is generally imagined ; but I believe all good observers concur in the opinion that its chief influence is exerted on the nervous system. In the work already mentioned I have devoted a section to the discussion of the action of opium on the nervous system, and have shown that its direct action in all cases is the production of hyperæmia, proceeding, it may be, to the stage of congestion; and that its *indirect* action, through the operation of the vaso-motor nerve-centres and their efferent nerves, is the production of anæmia of the several viscera—including the brain, which becomes anæmic last and least—as well as of the peripheral organs. Now, this general condition of the vascular system is analogous to that which is induced in cases of cholera, and it is therefore readily conceivable that opium may hasten the development of the disease, and may increase its destructiveness. If, however, the analogy here alleged be a true one, it follows that during choleraic collapse, the nervous system, excepting the brain itself, is in a sthenic and extraordinarily vigorous condition, whereas, nearly all writers, when adverting to the state of the nervous system, affirm that the hypothetical cholera-poison exerts a profoundly depressing or paralysing influence on the sympathetic centres at all events !

But the question most immediately interesting in connection with the case above described is—"by what agency does opium prolong the suppression of urine ?" I am not aware that any one has attempted to answer either this question or the parallel one—"what is the proximate cause of the suppression of urine in cases of cholera when no opium has been given ?" This question I believe myself to have answered in my work on cholera, by demonstrating

* Aitken's Science and Practice of Medicine, 3d. edit., Vol. I., pp. 658-9.

logically that the renal arteries and ureters are so excessively stimulated by the nervous system that they become spasmodically closed, and thus the afflux of blood and the efflux of urine being no longer possible, the renal functions necessarily cease. Now, if this is the case, and if the automatic nervous centres generally, and therefore those especially presiding over the renal arteries and the ureters, are stimulated by the administration of opium, it follows inevitably that the constringing force, superadded by the opium-stimulus to that already developed by the choleraic influence, must prolong the suppression of urine beyond the period during which it would continue were the choleraic influence acting alone.

Fourth.—Assuming the correctness of these views, which are strongly supported by all that we know of neuro-physiology and neuro-pathology, we are led straight to the conclusion that the more effectually any agent is capable of subduing the alleged hyperæmia of the vaso-motor nervous centres, or in other words, of exerting a sedative influence upon them, the more efficacious will be that agent as a remedy of the arrest of the urinary secretion, when it occurs not only as the ordinary concomitant of choleraic collapse, but also when it is rendered persistent by the administration of opium. The sedative, at once the most powerful and the most available, is cold; and hence it appears that the most scientific remedy for the morbid condition in question is the application of ice along the spine. Happily, in this instance, reason and experience accord. I have in numerous cases proved the power of the spinal ice-bag as a remedy for suppression of urine, as well as for the other symptoms characteristic of choleraic collapse, and the result of its application in the case narrated above is as conclusive as a single case can be of the correctness of my pathology of cholera and of the efficacy of the method of treating it to which that pathology led me.

As in this case the urine first passed after the renal function was re-established was loaded with albumen, I will close these comments with a few words on the pathological significance of albuminous urine in cases of cholera. This symptom has often been obseryed during the period immediately before that of complete collapse, and still oftener during the period of reaction. But, associated with cholera, there is a morbid state of the kidneys, occurring antecedently to that denoted by albuminous urine, and less generally recognized—a state made known to the careful observer by the discharge of urine at once pale and abnormally abundant. Orton and Parkes have recorded this symptom, and I have published a case in which it occurred. Now, I maintain that this symptom, and the presence of albumen in the urine just before collapse sets in, as well as during the stage of reaction, are alike referrible to one and the same cause operating more or less powerfully, and under different conditions, in different stages of the disease, viz.—hyperæmia of the spinal cord.

In my work on "Diarrhœa and Cholera" I have adduced facts and arguments in proof that all glands perform their functions at the bidding of motor nerves emanating either from the medulla oblongata or from the spinal cord, and that the sympathetic nerve presides over and regulates the activity of glands only in the same way as it presides over all other organs—viz., by regulating their blood supply. I have satisfied myself by a large number of observations, that an excessive secretion of pale urine denotes hyperæmia of the lower segments of the spinal cord. In such cases the amount of chemical transformation of brain and muscle which is simultaneously occurring is usually very slight; and, hence, while the preternaturally, but still moderately, energetic cord is causing the kidneys to secrete more copiously than normal, the products of textural change throughout the system, which impart to the urine its specific gravity and colour, are slight in quantity. During the period of *invasion* of cholera these conditions—moderate hyperæmia of the nervous centres, and diminution of the general circulation—exist, and hence the pale and abundant urine. As the disease advances the hyperæmia of the spinal cord, and consequently the intensity of the nervous effluence from it to the kidneys are so greatly augmented that their secreting cells draw blood to themselves in excessive abundance, thus causing renal congestion and the exudation of albumen as a consequence. But soon, through the increasingly energetic action of the vaso-motor nerves, the supply of blood to the glands becomes gradually lessened, and finally cut off; the arterial congestion subsides; the exudation of albumen, as well as the secretion of urine, ceases, and during the stage of reaction the urine may be again albuminous or not, according to the intensity of the febrile condition accompanying that stage.

SELECTED CASES, DEMONSTRATING THE VALUE OF ELECTRICITY AS A CURATIVE AGENT.

By HARRY LOBB, M.R.C.S.E., Etc.

No. III.—PARALYSIS RESULTANT FROM EXHAUSTIVE DISCHARGES.

In the *Medical Circular* for December 18th, 1861, I have already published, perhaps, the most remarkable case of complete paralysis, the result of flooding after child-birth, ever recorded. It was that of a lady, the wife of a physician, who, sixteen weeks after his wife's confinement, consulted me at the request of Sir Charles Locock. I found Mrs. L—— completely paralysed from head to foot, numbness to a great extent in all the limbs; no power over the sphincters—in fact, all parts controlled by the spinal marrow paralysed. I gave a decided and most favourable prognosis for considering the paralysis the result of extreme prostration from loss of blood, and not considering that there was any actual organic disease, merely loss of nervous energy from insufficient nutrition, I looked upon the continuous voltaic current as specific.

For the details of the case, I must refer your readers to the case. Sufficient to say here that in less than four months from my seeing her at her house in Canterbury, she called upon me in London quite well.

Cases like the above are uncommon; but partial and local paralysis, the result of loss of blood or long continued discharges, are exceedingly common, and although frequently overlooked, are of daily occurrence, and may be seen constantly in hospital, or large general practice. Lady L—— had had eight children in nine years, and had nursed them all, found that at each succeeding birth she had less power to nurse, and also found that she was losing strength in her back, complained after weaning the child of a sense of great weariness in the back, and after the birth of the eighth child had, on getting up, discovered that she had lost all power in her legs, and could not walk. Eleven weeks after her confinement the case was handed over to me by Sir Charles Locock. On considering the history of the case, I considered that the disease consisted of a debility in the cord, from too frequent and prolonged calls upon its functions, and that there was no organic disease—merely inanition. I looked upon the voltaic current as specific, and applied a system of voltaic bands from the cord down the legs, to be retained in position by an elastic bandage. I also applied a tolerably powerful voltaic current from a 120 element Pulvermacher Battery from the thighs to the lumbar portion of the spine for an hour daily. The result of this treatment, although slow, was sure, for in three months she could walk about her garden, and had regained her power of walking.

Paralysis from Prolonged Lactation.—There are few practitioners who have not been called upon to treat women for some form of ailment caused by excessive lactation. Have seen complete amaurosis produced by this cause several times—paraplegia frequently—but in the great majority of instances, tonic treatment, good diet, and fresh air, will effect a cure; occasionally this will not produce the desired result, and electricity is necessary.

Mrs. C. had nursed her child twelve months with the idea of preventing herself becoming *enceinte*, had lately

observed great numbness of the arms and hands, and had, by degrees, lost power over her fingers, could not use a needle or button her collar; had ceased to nurse the child, but was getting worse, tonics had been tried, but without avail, and her medical attendant in the country had sent her to me, as he was unable to improve her condition.

On examining with the electro-magnetic current of the secondary wire, I found numbness in patches over both arms, so much so that she could not feel the highest power of the battery, and the muscles covered by the numbed surface would not contract upon the electrical stimulus. The case appeared to me quite clear. I passed a powerful current from a 120 element battery to the upper part of the spine from the palms of the hands, and stimulated occasionally the numbed portions with the wire brush from the electro-magnetic battery; the case was more obstinate than I anticipated, as I thought that a week or ten days of such treatment would have been sufficient; this, however, was not the case, as six weeks passed before a cure was effected. Sometimes we meet with cases more obstinate than might have been anticipated, in such instances there is probably some other and previous debilitating cause held back by the patient. I have met with this more than once.

The prognosis in all these cases is favourable, if the patient will only give sufficient time to the treatment. I think I may say that I have never seen an instance of paralysis the result of exhaustive discharges (where there was no organic disease of the cord) which was not curable. By this I mean, that if the patient would have patience to carry out the treatment for a sufficient time, a cure would be effected. I propose in my next paper to give a few cases of what are termed ataxy, the result of exhaustive discharges.

(To be continued.)

Hospital Report.

ROYAL FREE HOSPITAL.

PUNCTURED WOUND OF NECK: SEVERE ARTERIAL HEMORRHAGE: DEATH: AUTOPSY.

Under the care of JOHN D. HILL,

SURGEON TO THE HOSPITAL.

[Reported by C. J. Jeaffreson, Senior House Surgeon.]

Patrick Maloney, a strongly-built Irishman, whilst at work, was struck by a pick-axe, which fell from the top of a building twenty-five feet in height. When brought to the hospital, seven minutes after the accident, he had the aspect of sudden copious hemorrhage, and the bottom of the cab, together with the companions who brought him, fully attested to the amount of blood which had been lost. At the upper and back part of the neck, on the left side, about an inch below the level of the ear, and on a line corresponding with the posterior margin of the sterno-mastoid is a circular jagged wound, large enough to admit the little finger. The posterior triangle of the neck is generally distended, evidently with effused blood.

As the bleeding had ceased, and the depth and direction of the wound was unknown, it was thought advisable to put the patient quickly to bed, in the hope that it might not recur, but in this our expectations were disappointed, for in the course of a couple of hours a fresh arterial jet issued from the wound. Under these circumstances Mr. Hill resolved to cut down upon, and tie the bleeding vessel if possible.

On passing a probe into the wound it was found to pass almost perpendicularly downwards, and to strike upon the first rib close by its attachments to the spinal column, and in the wound a piece of bone was found which subsequently proved to be the top of the transverse process of the sixth cervical vertebræ. Taking this probe as his guide, an incision four inches in length was made almost perpendicularly downwards, and a careful dissection pursued through the muscles of the back of the neck, until the track of the wound was reached. At its lowest corner, and very deeply situated, a moderate-sized vessel was seen to jet, after the ligature of both ends of which all hemorrhage ceased. The wound was then plugged, a bandage placed over it, and the man removed to bed. Strict quiet was enjoined, and only cold iced drinks allowed.

September 7th.—On the following day there was considerable reactionary fever; his pulse was 100; he complained of little or no pain, but some slight difficulty in swallowing, and shortness of breath. He had slept badly during the night, and was ordered liquor opii sed., ℥ xxv., to be taken at bedtime. The bandage was loosened, but the dressings not disturbed.

8th.—To-day his feverishness has increased; the pulse is 125; respiration 40, shallow, and chiefly abdominal. He complains of greater difficulty in swallowing, and greater shortness of breath than yesterday. The swelling above the clavicle has not diminished; it is perfectly dull on percussion, the dullness extending to the apex of the left lung, and also some distance down the sternum.

9th.—He is almost comatose; the left lung is solid and impervious to air in front, and he is too ill to be examined posteriorly; the cervical swelling evidently interferes with the return of blood through the left internal jugular vein, and the greatly increased cardiac impulse would lead one to suppose that in the same way the functions of the pneumo-gastric were interfered with. His pulse is 140; respiration, which are extremely shallow and irregular, average 40 in the minute; towards evening he became perfectly comatose, and died the following morning at 8 A.M.

The post-mortem examination was made six hours after death, when the following notes were taken by Mr. Hill:—There is an ecchymosed condition of the integuments, and a diffuse swelling on the left side of the neck, extending beyond the mesian line, most marked in the posterior triangle. On removing the skin, the muscles, vessels, and nerves were found matted together by a fibro-gelatinous exudation, and here and there clots of blood, some undergoing a puriform degeneration, others unchanged, but there was nothing like a distinct cyst found. Coats of the carotid and subclavian were extremely vascular, and the internal jugular was obliterated by a large and firm clot, which extended into the right auricle, the inflammatory exudations which surrounded the phrenic and pneumogastric nerves, must seriously have impeded those functions. The anterior mediastinum was infiltrated with dark blood, which extended downwards in front of the pericardium.

Further examination revealed that the pick had struck the transverse process of the sixth cervical vertebra, this it had knocked off, and in its course downwards divided the deep cervical artery at the point where it passes between the transverse process of the seventh cervical vertebra and the first rib. Glancing from the rib it had continued its course into the apex of the left lung, the upper lobe of which was found in a condition nearly approaching hepatization, with recent pleuritic adhesions around its apex. Both ends of the profunda cervicis were found ligatured, as well as many smaller superficial vessels. There was also consolidation of the right lung, from the apex to the superior part of middle lobe, as well as vascularity of the pleura. The inflammatory process had no doubt implicated these organs by direct extension.

CHOLERA THEORIES.

No. V.

Among the various theories noticed in this series of articles, we may be expected to say a few words about the last phase of the fungus theory, which many seem to forget is one of the oldest. Fungi abound everywhere, and their growth is governed by laws so imperfectly understood, that we need feel no surprise that to their influence has been ascribed the propagation of various epidemics and holera amongstthem.

The last investigation of this point is that of Professor Hallier, and his theories have been lately aired by the medical officer of the Privy Council in his last report.

Hallier found a vegetable growth similar to fungus in cholera evacuations, and set to work to grow it, and observe it. It seems, from his description, to resemble, in some respects, the oidium albicans. In the course of his experiments he obtained a form exactly like the urocystis which is found in diseased cereals. Hence, it has been inferred by some, not merely that certain fungous growths are sometimes to be found in cholera excretions, but that they are the cause of the disease, and then a long leap is made, and it is assumed that the urocystis of diseased rice originates cholera. We must hesitate to accept such hasty generalizations from the facts related; and, moreover, beg to observe that the facts, so far from being new, have been recorded some four or five and thirty years ago. Without pretending to exhaust the subject, we place before our readers, in a small compass, these later researches, and point out how inconclusive they are. Nor are we alone in our doubts. In a new periodical called "Country Life," a writer, under the initials M. C. C., and who we take to be a distinguished authority on fungi, has so completely expressed the difficulties of the subject, that we cannot do better than lay before our readers the following paragraphs from his cogent article. If every one who writes on these obscure topics understood, as well as this author, what he writes about, we should be spared the task of criticising many untenable notions. The writer referred to says:—

"We come now to one of the most important stages of this inquiry, the supposed source of the Urocystis form of fungi. 'It seems that this fungus is identical with that which grows upon the rice plant in an unhealthy condition, and it is therefore important to consider whether diseased rice has any influence upon the development of cholera.' It may be observed here that it is the leaves and not the grain which is affected by Urocystis. It should be shown that the grain of rye when the leaves are attacked by Urocystis parallela, is capable of producing cholera. Singularly enough Dr. Tytler has been alluded to as having read a paper on the Asiatic cholera, which was said to have arisen in Jessore in 1817, and was occasioned or kept up in India by the consumption of unsound rice as an article of food; and it is added that Dr. Tytler exhibited various samples of 'ergoted' rice in London. Now if 'ergotized rice' is meant by 'unsound rice' in Dr. Tytler's paper, *that* can have nothing whatever to do with Urocystis, since nothing can be more distinct than Urocystis and ergot. Rice infected with ergot has undoubtedly produced fearful results in India when consumed as food, but those results were not cholera, and the action of ergot, whether of rye or wheat (and undoubtedly also of rice) is known well enough to the medical profession. We doubt whether all Dr. Tytler's observations did not refer to ergotized rice, as did his letter to the Agri-horticultural Society of India, and published in their Transactions for 1837. After declaring the disease of rice to be ergot he proceeds to observe, 'Upon the deplorable consequence arising from the vitiation of the Bengal crops it is needless for me to expatiate, because they have been too visibly displayed in the dreadful pestilence which has ravaged India for nearly three years; the disease at Penang, the Mauritius, Cadiz, America, the West Indies, and other places, to all of which the noxious grain from this country, as admits of undeniable proof, has been exported and employed as food, while actual experiment proves by ocular demonstration the poisonous qualities of the seed, and that it is capable of killing a living animal in the space of from three to ten days posterior to its admission into the stomach as food.' There has been a mistake somewhere, or the results attributed by Dr. Tytler to rice infected with ergot in his communications of 1833 and 1837 would not now be transferred (for sensational purposes perhaps) to the supposed Urocystis of cholera as developed in bad rice.

"The last point to which we shall allude is the announcement that Professor Hallier 'planted rice under conditions similar to those which obtain in the localities where the cereal grows naturally, and he then watered them with the excreta of cholera patients. and on careful examination he found that the plants were infested by parasitic growths, resembling those observed when Urocystis (cholera fungus) grows in cereals; but no actual proof of the identity of the two forms was noted.'

"If this represents what actually took place, it adds two or three facts to our knowledge of Urocystis, and that is almost all. If it be admitted that a parasite has been developed on growing rice, by watering with cholera excreta, and that the parasite is identical with certain spores found in cholera excreta, the facts are of interest, but they by no means prove that the Urocystis is the cause of cholera, or that bad rice is the cause of cholera. To call Urocystis 'the cholera fungus,' is begging too much; to charge upon the Urocystis parasite results which Dr. Tytler unhesitatingly attributed to Ergot, and impose the responsibility on Dr. Tytler, is unfair; and to pretend that the true cause of cholera is presumed to be discovered in bad rice and its Urocystis fungus is, at least, premature, when the evidence fails at nearly every turn. If bad rice is the source of cholera, for the reasons alleged, are the spores of Urocystis active after the rice is boiled, and their germinating power destroyed? If not, in what form is uncooked rice eaten? How does it happen that the Urocystis, which would be external to the rice grain (since it is a leaf parasite, if identical with that of rye) if enough of it adheres to the rice grains to be dangerous, has not yet been detected by the microscope amongst imported rice.

"It must be borne in mind when balancing the evidence on this question, that rice and rice-flour after it has been cooked, is so congenial to the growth of fungi spores, that rice-paste is generally selected to grow them upon for experiment. If, therefore, rice is proved to have any intimate connection with the propagation of cholera, is it not possible to do so by collecting spores from the atmosphere between the operation of cooking, and that of eating? But it is folly to conjecture; the crime is not proved against the prisoner at the bar, and he is acquitted. Let us hope that the experiments will be continued, and that in the meanwhile no absurd cry will be raised about a 'cholera fungus.' M. C. C."

Reviews.

ON THE INFLUENCE OF CLIMATE IN THE PREVENTION AND CURE OF CHRONIC TUBERCULAR PHTHISIS. By EDWIN LEE, M.D. London, 1867.

As this is a pamphlet, the contents of which originally appeared in our own columns, we need do no more than inform our readers that it is now published in a separate form, and may be advantageously read by educated persons of all classes, as well as by our own profession.

THIRTY-SEVENTH ANNUAL REPORT OF THE RESIDENT PHYSICIAN OF THE BELFAST DISTRICT HOSPITAL FOR THE INSANE. Belfast, 1867.

DR. ROBERT STEWART, Resident Physician Superintendent of the Belfast District Lunatic Asylum, has for many years held a deservedly high position among his brethren in the matter of annual reports on the important subject of mental disease. The present report is no exception to this statement, and they who are specially interested in the subject will find in this book of pp. 42, 8vo, some most valuable statistical information and useful hints. We shall give just one example. Under the heading Suicidal and Homicidal Cases, Dr. Stewart thus writes:—"As heretofore, the cases amongst the admissions of the year presenting one or both of the above tendencies prior to coming under treatment (and which add so largely to the constantly anxious duties of these Institutions), were not few; nineteen in all, six males and thirteen females. Happily, however, no casualty from either cause occurred here during the year, but to secure this the most unremitting watchfulness was required. The following were the previous attempts made at home, &c., by the above—Four (one male and three females) attempted to strangle themselves; three (one male and two females) attempted to drown themselves; one (male) cut his throat; one (male) attempted to poison his parents; two (males) were homicidally disposed; one (female) attempted precipitation from a window; one (female) attempted to beat her brains out against a wall; three (females) attempted to hang themselves, one nearly succeeded in doing so; two (females) tried to choke themselves by forcing foreign bodies down their throats; one (female) strongly homicidally disposed."

We have thus given at length Dr. Stewart's report under one very important head, and with this the rest fully corresponds. So far as one may judge from a published document of this kind, the Governors of the Belfast Asylum are particularly fortunate in having had for so many years, thirty-seven we believe, the valuable services of so efficient a public servant as Dr. Stewart.

CHOLERA: Some Remarks upon its Nature and Pathology, with a Report of Twenty Cases, out of a large number successfully treated under a certain system during the late Epidemic. By P. C. LITTLE, F.R.C.S.I., &c. London: Churchill and Sons. Dublin: Fannin and Co. Edinburgh: Maclachlan and Stewart. Pp. 37. 1867.

DR. LITTLE'S views on Cholera were originally published in this Journal in 1866; and the present volume represents them, with the results of their practical application, as expanded in his paper read, and discussed at great length, before the British Medical Association, during its recent session in Dublin.

Respecting the nature and pathology of the disease, on pages five and six he thus gives his impressions, which appear to be rational and worthy of consideration:—

"I am disposed to consider cholera as primarily affecting the nervous system, and am led by its many points of similarity to associate it with a large and obscure class of diseases whose pathology may be found in a loss of balance between the cerebro-spinal and sympathetic systems, the former preserving a preponderating influence. It is most likely a contagion, but of what nature is yet a matter of speculation. It is probably an animal poison, introduced into the system through the media of water, food and air; and there is every reason to believe, that, the development and diffusion of the morbific matter, are favoured by certain atmospheric, hygienic, and individual conditions.

"Whatever may be the *modus operandi* of this poison, its chief effects appear to be, a suspension of the sympathetic power over the capillaries, a consequent blocking up of those vessels, and a cessation of their functions. Generally, in the first stage of the disease, the capillaries seem to resist to the utmost the depressing effects of the toxic agent, which may explain the great increase and evolution of animal heat, the excretive efforts of the alimentary canal, and the high nervous phenomena which usher in the disease. The elimination of the poison through these vessels in some cases, is not as rapid as its development, owing to weakness of the sympathetic system in such individuals. Among the consequences are, an accumulation of the injurious matter in the system, the suppression of the secretions, and the establishing of the features indicative of the second stage of the malady. From observation and the results of my treatment I conceived that one of the greatest impediments to the action of the vaso-motor nerves in cholera, is the presence in the *prima via* of the products of the disease. Such an impression appears reasonable, as we remark every day in this system of nerves, that great excitement may be created by simple causes. In one case, the eating of a stale egg brings on vomiting, in another, diarrhœa is induced by mutton-broth or green vegetables. In both cases the sympathetic nerves, as if by an inherent repulsive principle, strive to liberate themselves from the disturbing influence, and such seems to me to point out the first step in the rational treatment of cholera.

"In accordance with those views, I sought, *firstly*, to free the sympathetic nerves, especially those presiding over the gastro-intestinal mucus tract, from contact with the deadly products of the disease; and, *secondly*, to renew the tonicity of those nerves. Of the means which I selected for the attainment of these ends, I relied *chiefly* upon an humble drug, the mustard of commerce, which, by its well-known emetic, aperient, and neuro-tonic properties, suited admirably my two-fold purpose, as, I think, will appear from the following recorded cases."

The records of twenty cases are clearly given, and are followed by five well-arranged and neatly printed *tables*, which we commend to the notice of the profession. Further, Dr. Little discusses the *efficient and predisposing* causation of cholera; its connection with *water;* and furnishes several very useful "anticipatory" rules regarding the treatment of patients. He also enters into the question of contagion by *excreta;* and winds up with the following general summary of his plan of treatment which we give in his own words from pp. 35-37:—

"In all cases, I have employed an active mustard emetic, and with most satisfactory results. I regulated the dose by the effect upon each individual. In no adult case, have I found less than an ounce sufficient. In some cases, I have been obliged to administer three or four times that quantity, before free vomiting was brought on. I was careful, however, in not allowing the emetic to remain *undiluted* in the stomach longer than about two minutes. I then gave an abundance of very warm water, which I found to be the best diluent, and at the same time a strong auxiliary towards raising the temperature and inducing reaction. I used artificial means,—irritation of the pharynx,—to excite the stomach, where it seemed regardless of the emetic. I should in similar cases, and in collapse with inability to swallow, introduce the emetic into the stomach through a pump, and afterwards wash out the organ. I have always applied counter irritation to the abdomen, and sometimes, also, to the feet. Sinapisms I preferred for that purpose. With the same intention I advised flannel to be rolled around the body afterwards. On leaving my patient, I generally prescribed a stimulating anodyne. I seldom saw a case which did not appear to be improved by it.

"In *every case* I carefully superintended the treatment, and remained with my patient, according to his improvement, from one to three hours, only leaving him when I thought him on the recovery. Such vigilance was, in my opinion, *absolutely necessary*, and, I doubt not, contributed largely to success,—the best reward of patience.

"I have been asked, what is the *modus agendi* of the mustard emetic? I confess, I have not given this branch of the subject sufficient attention to warrant any decided opinion. I am, however, inclined to believe that its more immediate action upon the sympathetic nerves of the mucus membrane of the alimentary canal is *mechanical*, such as follows the application of any irritant; and that its subsequent effects are *chemical* especially the production of volatile oil, by the union of the mustard with hydrogen, which abounds in cholera, in the hypertrophied glands, follicles, and innermost lining of the stomach and bowels.

"Permit me to say a few words about mustard. This drug is reputed to be made from the seeds of *sinapis alba* and *sinapis nigra*, but it is so generally adulterated with flour, tumeric, capsicum, &c., that its therapeutic effects can hardily be estimated, which is a serious objection to its use in scientific medicine. I have, therefore, endeavoured to procure a true and becoming preparation of mustard possessing the active properties—"the volatile oil, and acrid principal of the drug,"—and consequently, productive of its emetic, aperient, and neuro-tonic effects, so well described by Dr. Pereira. At my suggestion, Dr. Butler, of Sackville-street, has succeeded in making "*a concentrated tincture of mustard*," which from recent tests, I have reason to believe, will attain the therapeutic advantages required. I am sorry to say that there is a probability of my having soon an opportunity of practically testing this preparation in cholera."

From the interesting, theoretical, and practical views of the writer, and the mode in which this little book has been arranged, and written, there is no doubt of its being not only a useful manual for the Medical Practitioner; but the *rules* to be found on page 32 may most usefully be circulated largely among all classes of the community.

Dr. Little is so well-known as a frequent and able contributor to our columns, that we need do no more than recommend to our readers the perusal of this his latest work; and we do it very cheerfully and *ex animo*.

ESSENTIALS OF THE PRINCIPLES AND PRACTICE OF MEDICINE: A handy book for Students and Practitioners. By HENRY HARTSHORNE, M.D., Professor of Hygiene in the University of Pennsylvania, &c. &c. Philadelphia: Henry C. Lea. 1867. Pp. 417.

THE student soon discovers that in Medicine, as in all other branches of knowledge, there is no royal road. Patient toil can alone bring success, for Science demands much wooing, and he who tires least in his importunity will prove the favoured suitor of the coy goddess. To make his task easy the student will find that many books have been written which promise much, but really perform little. In their style they are mostly dry and uninviting, they excite no thirst for deeper draughts of knowledge, and are swallowed, so many pages at a time, by idle students, whose chief aim is to roll out glibly in the examination hall pages of their favourite manual, and thus obtain a diploma to practice an art of which they are sadly ignorant. The influence of such books has been most pernicious, and will continue to be so until they are written with much

greater skill, and contain not merely a dry compilation of opinions, but the actual thoughts of an author, well qualified to think and speak clearly on the deeper problems of our calling. When an author's own thoughts shine out in his pages, then, and then only, does he stimulate his reader to think and enquire. The little book before us has this quality, and we can therefore say that all students will find it an invaluable guide in their pursuit of clinical medicine. Dr. Hartshorne speaks of it as "an unambitious effort to make useful the experience of twenty years of private and hospital medical practice, with its attendant study and reflection." That the effort will prove successful we have no doubt, and in his study, and at the bedside, the student will find Dr. Hartshorne a safe and accomplished companion. We speak thus highly of the volume because it approaches more nearly than any similar manual lately before us, the standard at which all such books should aim—of teaching much, and suggesting still more.

One of the best parts of the book is the introduction, which is devoted to the consideration of "Systems of Medicine." In some twenty-three pages the author has written a review of the various theories that have held sway from time to time, and has produced a chapter that will be most useful to his readers. The many phases through which medical opinion has passed, are too little dwelt upon by the teachers in our schools, for we know no better method of inculcating that caution with which all medical theories should be received, than an occasional glance at the striking revolutions of opinion recorded in the history of Medicine. The study of this chapter will strengthen the student for his task at the bedside, and enable him to construe the phenomena of disease with greater accuracy and truth. As our author says, "what is wanted now is more *positivism* in medicine ; more *exact observation* of clinical and therpeutical facts." "Medicine needs more fact and less theory." More facts, indeed, of an exact kind, for we are already so crushed by the weight of useless, inexact, and formless facts, that one of the most difficult tasks now is to separate the good from the bad, and eliminate those teachings sanctioned by authority, indeed, but founded on only partial truths or false data.

The Principles of Medicine are treated of in Part I., which is divided into four sections, respectively devoted to General Pathology, Semeiology, General Therapeutics, and Nosology. Each of these sections is well done. In Pathology, we find the most recent views carefully considered, and sometimes justly criticised. In the next section we have two parts—one devoted to Symptomatology, and a second to Physical Diagnosis, which is followed by some useful remarks on "Temperature in Disease," the "Inspection of the Dead Body," and "Medico-Legal Examinations." In the chapter on General Therapeutics, we have a careful review of the various forms of treatment which are now or have been in vogue, and we have further clear descriptions of the uses of Medical Electricity, Inhalation, and Hypodermic Medication. This section ends with some Therapeutic Maxims, which we cannot refrain from quoting. They are as follows :—

"1. All Pathology is but the Physiology of organic perturbations.

2. Never interfere actively in disease without a distinct object.

3. Act only upon scientific reason, or well-defined experience.

4. Treat the cause of disease whenever it is possible.

5. Watch always, and treat, when requisite, the condition of the patient.

6. Avoid, especially, routine treatment according to the names of diseases.

7. Use no violence with self-limited diseases."

We cannot reproduce these maxims in all the glory of the varied type of the original, but we recognise their importance by quoting them, and feel sure that the pencil of each true student will emphasize them more effectually than all the capitals, italics, and antique type in the world.

The second part of the volume is devoted to Special Pathology and Practice. The classification is chiefly clinical, but each disease is clearly described, and useful remarks follow on its causation, diagnosis, and treatment. In some cases several pages are devoted to the consideration of a single malady, and thus, cholera, typhus, typhoid, and cerebro-spinal fevers are treated of at considerable length.

At the end of the book there is a valuable collection of prescriptions, preceded by some very sensible remarks on the use as distinguished from the abuse of formulæ. Directions are also given for the preparation of some important aliments, and two indices—one of diseases and formulæ, and a general index, conclude the work.

We cannot finish our task without congratulating the author on his success, and expressing a hope that at some future time we may have a larger work from his pen, in which his ideas may appear more fully, and not cramped by the dogmatic style necessitated by the form of the present volume.

To the student we can heartily recommend the work of our transatlantic colleague, and the busy practitioner, we are sure, will find in it the means of solving many a doubt, and will rise from perusal of its pages having gained clearer views to guide him in his daily struggle with disease.

CLINICAL LECTURES (Illustrated by Coloured Photographs from Life) ON THE DISEASES OF THE SKIN. By BALMANNO SQUIRE, M.B., (Nos. 3 and 4). London: Churchill and Sons. 1867.

WE have recently expressed a very favourable opinion of the first and second numbers of this series ; and we are happy to be able to repeat, as to Nos. 3 and 4, the commendation to which 1 and 2 were fairly entitled.

No. 3 is headed Class III.—Papulæ; the example is LICHEN INVETERATUS ; the lecture is very short and wholly free from waste of words ; and the photograph is as true as anything of the kind can be on a reduced scale.

No. 4 is headed Class IV.—Animal Parasite Diseases ; the example is SCABIES ; the lecture is as good as its immediate predecessor ; and the photograph, which is also good, enables both the vesicular and pustular eruptions of Scabies to be well studied in their ordinary situation—the back of the hand.

ON SYNTHESIS, AS TAKING PRECEDENCE OF ANALYSIS IN EDUCATION. By HENRY MACCORMAC, M.D. London : Longmans, pp. 16, 8vo. 1867.

DR. HENRY MACCORMAC, of Belfast, who has long been favourably known to our readers, has published this tractate, and has addressed it to the Irish Education Commissioners, Inspectors, Teachers, and others interested in education. On page seven, Dr. MacCormac thus speaks for himself—"When we learn, when we educate, we ought to combine before we take asunder, take up, concrete, before we attempt to deal with abstract particulars. Nature teaches by synthesis. She begins with a few particulars which she continually adds to, and as incessantly repeats. On the contrary, we teach, or attempt to teach, by analysis, before we have gained materials to analyse, and we either repeat insufficiently, or do not repeat at all. Hence it is that nature achieves success, while we incur, if not absolute, at least approximate failure. And yet synthesis, properly followed up, would render education effective, pleasant, and sequential, as a premature analysis renders it unpleasant inconsequent, and, above all, ineffective." In all this Dr. MacCormac very truly observes that he has not discovered a new principle in education, but that he only sets forth an old one, more lucidly than it is generally set forth. Now, with all respect, it is this very want of lucidity which is, to our mind, the prominent defect of an otherwise admirable pamphlet. A great deal of what he says in the matter of *how* this synthetical mode can be best adopted in practice, comes to nothing more than grand words when it is closely looked into. We come, however, to two questions, with which he does deal practically, the learning of botany, and the learning of dead and foreign languages. As to the first, we all know very well that field exploration and demonstration is the best way of learning it ; and we are quite sure that were this made the first step with our medical students the science would be better liked by them than it is ; on the obvious principle, that it is thus more easily learned than by listening to introductory lectures on botanical physiology.

As to the acquisition of languages, Dr. MacCormac surely is aware that the method he proposes is in operation in many cases in these countries. He thus gives his experience of the miseries of "*hic hæc hoc*:"—

"I remember when a child that two precious years of my life were given up to getting off the Eton Latin grammar by heart, before I knew a word of Latin otherwise. And yet we might call in the young vagabonds from the street, or the savage from the wild, and, by the synthetic method, carried out with a will, impart a practical knowledge of language, any language, such as schools and colleges might often envy."

As regards Latin there is no doubt whatever that the old custom of having many public acts done in Latin which are now done in English, conduced very much to the synthetical

acquisition of that language. For instance, in our student days, it was the custom for hospital physicians to dictate their prescriptions and directions before their pupils in correct pharmaceutical Latin. As a necessary consequence these pupils insensibly acquired the right way, and no other but the right way, of prescribing. Now, however, any way seems to suffice. Some do it in English, some half in English and half in bad Latin; some in abbreviations vocally altered, which, probably, they could not give at full length; and a few according to the old style. What is the consequence? Few students, even when Bachelors of Arts, are able to write a correct Latin prescription; and they who succeed in doing so have been compelled to acquire it by a slow analytical process.

Dr. MacCormac has passed over one Science, which notably in the present day is taught by Synthesis—music. Teach a child a tune in correct time, and having learned the names and value of the notes, he will soon see them exemplified in the written tune, with the melody of which he is familiar, and which he has learned by imitation.

Dr. MacCormac has written to purpose if he arouses attention to his system, which *prima facie* is sound, if only practicable. We heartily commend it.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 2, 1867.

SIR JAMES SIMPSON ON PUBLIC HEALTH.

DURING the recent session of the Social Science Congress in Belfast, Sir JAMES SIMPSON delivered an Address on Public Health in every way equal to his reputation, and specially remarkable for that felicity of expression for which he has been long distinguished.

Having defined Public Health to be public wealth, he took as the text of his *concio ad populum* the indisputable axiom that prevention is better than cure, and traced a large part of our national affliction in the way of disease to the evils produced by overcrowding in towns, and the accompanying defect of impure air. Nature had everywhere provided a bountiful supply of pure air, but "man everywhere endeavoured to contract this supply, and to putrefy and corrupt it by the internal arrangement of his dwellings." He next referred to the frequent disregard to Public Health instanced in rural and corporate regulations, or want of regulations, in regard to manure and sewerage; and traced a great deal of disease existing in cities to gas-lights, manufactures, and in some cases even to stables. As to the proper way in which to dispose of sewerage, "For it, as well as for everything else (observed the learned Baronet), there was a natural use; and he believed the time was coming when they should not toss so much of it into the sea as they did. The true use to make of it was to return it to the soil. The value for each human being was calculated at ten shillings a year, which gave £70,000 worth of sewage wasted every year in Belfast." Having glanced at the comparative cost of home and hospital treatment of the sick, he proceeded to discuss the comparative mortality in hospitals as compared with that occurring in private houses, and stated the startling opinion that "the man treated in a surgical hospital was exposed to more chances of death than the soldier on the field of battle." Sir JAMES further made the highly interesting statement that the American sect called Shakers had been able to dispense altogether with doctors and physic, and were, nevertheless, so healthy that they had had but one case of fever in thirty-six years. "The married women there lived as nuns, and the men as monks. They had no doctors among them, and took close scientific care of ventilation. Every building was provided with shafts, fans, flappers, and vents. Stoves were so delicately adjusted as to keep the temperature in winter within one degree of warmth." Discussing the constructions of hospitals, he avowed the opinion that if our hospitals, from being crowded palaces with a layer of sick in each flat, were changed into villages or cottages, with one, or at most, two patients in each room, a great saving of human life would be effected. "The village should be so constructed, of iron or wood, as to be moveable, so that it could be placed where required; and in case of epidemics the accommodation could be easily increased." There is, *a priori*, much plausibility in this not by any means new idea, and, we confess, we should greatly like to see it tried somewhere on a large scale, and in the same localities in which the palatial hospitals now exist, and are said to cause so much mortality.

Sir JAMES next proceeded to a more attractive subject—the causes and prevention of mortality in children. He insisted, with great propriety, that the air supplied to infants should be *warm;* also that want of clothing of the necks and arms was highly injurious. Passing from the children to their mothers, "he would be much disposed sometimes to cut off a portion of the ladies' skirts in order to clothe their necks and arms." Children should not be allowed to sleep in the cold, and, "he was sorry to say, that he had often known lady mothers to carry dirty dogs in their arms, and yet not be willing to carry the children that God had given them." He was opposed to cold baths for children; and while on this subject we may note a curious statement of his, that in Belgium, where children are brought out for public baptism a fort-

night after birth, one-half more died in winter than in summer. We do not think this fact, if it be a fact, proves anything as to the point. Were the point at issue—the propriety of baptising infants by immersion in cold water in the winter season in these countries—we could understand his suggesting, as he well might, that the water used on such occasions should be raised to a certain temperature; but take the case of Russia, where in its cold climate infants are brought out, and publicly baptised by immersion, *(and in no other way* are they baptised according to the national religion of the Eastern Church), how stands the mortality *there?* and how is it in England for example, where public baptisms of infants are very common, according to the use of the Church of England? But we must not stop to pursue such a discussion. Sir JAMES finished his address by discussing other points of social moment, such as the criminal starving of illegitimate children by mothers, the great mortality of unmarried men, the value of vaccination, and the necessity of an authorised stamping out of the small-pox. We give a full report of the address in another column, and highly commend it to our readers.

THOUGHTS FOR STUDENTS.

YESTERDAY, the introductory lecture was delivered in the several Medical Schools of the English Metropolis, and the course was commenced by which the student must prepare himself for the honourable and successful discharge of the work which will be required of him in the pursuit of the Profession which he has chosen. In entering upon his studies, his imagination may have been dazzled by the prospect of achieving for himself a standing in society, and securing a name which will give him rank among his confreres. We say nothing of the excitements of ambition, and the pictures of coming celebrity which an ardent and aspiring youth may place before himself. Let him enjoy them. No one can be successful without some degree of ardour, whatever may be the mode of life he has selected; and it cannot be denied that there are prizes in our Profession—positions of influence and honour, to which the highest minds might aspire. But it should at all times be borne in mind that no such distinction can be gained even by superior intellect without constant labour and self-devotion.

It is a fact, however, that superiority and eminence, wealth and a high name, can be obtained only by the few. The large proportion of those who commence every autumn their medical career are destined to take their stand as ordinary Practitioners. But let not this discourage them. Let them still bear in mind that their position is an honourable one; that no class of men are greater benefactors to their kind; that however humble their sphere in comparison with that of the great names which stand out before the Profession, yet as true dispensers of the healing art, they may be the means of conveying alleviation and health as widely and effectively as the most renowned; and that, if the world does not know, yet the circles in which they may move will know, and will appreciate, to their full extent, their devotedness and their skill.

These are motives, if fully thought out and felt, quite sufficient to inspire and sustain every student in the efforts he has to make in order to qualify himself for the future of his professional life. It is not a little that is expected of him, and it is not a little that will prepare him worthily to be looked up to as the man who can be trusted in all the diseases and sad calamities of human life. From the moment he sets foot in his Medical School he has before him three or four years of hard work, if he would gain his diplomas, and come forth the justly accredited medical man. He has to study all questions relating to the nature and cause of disease, the method of treatment, and the mode of cure. He has to acquire a knowledge of the elements, at least, of several sciences, and to blend them in such a manner as to render them subservient to the one great purpose which he has in view. Besides which he must cultivate a habit of constant observation and reflection, and endeavour to remember and compare the various symptoms of disease, and the numerous circumstances by which the health may either be endangered or restored, so as at once to distinguish the one from the other, and to make himself a capable and trustworthy adviser.

A mere glance at the nature of these things is sufficient to remind the student that he must bring diligence and energy to his work, and that nothing must be suffered to turn him from the task he has set himself to perform, if he wishes to secure ultimate success. Let him also, in the outset of his career, guard against the enticements to pleasure, and avoid, with a stern determination, the indulgencies and vices which everywhere present themselves in the path of the young. Nothing can interfere more with present duty, and nothing can have a more injurious effect upon his future standing in society. Let him be attentive to his morals, and he will be a more successful—a better—and a more influential man. And if, in addition, he endeavours on all occasions to show a spirit of kindness, and to sympathize with the sufferings he is called upon to alleviate, especially the sufferings of the poor, nothing can hinder him eventually from gaining the confidence, the esteem, and the affection of the community in which his life may be spent.

DOINGS AT ST. PANCRAS.

ANOTHER instance of the unfair and dishonourable treatment which Medical Officers sometimes meet with from public bodies,

occurred just lately in the parish of St. Pancras. Not long ago the Poor-law Board issued an order to that parish for the appointment of a new Board of Guardians to be elected according to the regulations of the Poor-law acts, in consequence of the notorious and continued mismanagement of its late Board. There seems, however, to be some fatality connected with the administration of parochial affairs in that district, some necessity of doing what is unbecoming and wrong. The new Board has just proceeded to elect three new medical officers, and to dismiss the old ones, who have served them faithfully and efficiently, without a word of previous intimation. The injustice of the step will best be seen by the following quotations from the letters sent by the senior medical officer, Mr. W. F. Bennet to the Chairman of the Board of Guardians, and to the Poor-law Board :—

"In the first place, I would call your attention to the circumstances under which I was elected. In December last an advertisement appeared in the *Lancet* for candidates for the office of senior resident medical officer to the St. Pancras Workhouse and Infirmary, and stating that married men were eligible. I applied for this office, and came to London on the day of nomination, when, out of all the candidates who appeared I alone was selected for nomination ; but, in accordance with a rule, whereby one candidate only could not be sent to the vestry for election, I was compelled to return to the country. The appointment was again advertised, and I renewed my application, and from the three candidates then nominated I was elected by a large majority.

"When I took the office I resigned a partnership in the country, and the surgeoncy to several clubs, thinking I should retain the appointment so long as I performed my duties to the satisfaction of the board, and the sick poor committed to my charge. I sold the whole of my furniture, sublet my house for the remainder of my term, at a yearly loss of £10, and relinquished my share of the partnership at a great pecuniary sacrifice.

"During the time I have held office as senior medical officer, I have always endeavoured to discharge my duties faithfully and honourably ; and I can conscientiously aver, that under very trying circumstances, I have done my duty, as a proof of which I have not, to my knowledge, during a period of between seven and eight months, ever had a single complaint made against me by any of the sick or officials.

"Had it not been for the assistance I have derived from my wife, who has devoted some hours every day to the overlooking of diets, &c., (on a plan which I have devised to prevent waste, &c.), I should have had to apply to the board for help, as the superintendents appointed to take charge of the infirmary have both proved persons of intemperate habits, and have been discharged in consequence. Since that time the senior paid nurse has had charge of the place under my supervision. It is the opinion of all who have paid attention to this subject, that the head of the medical staff of so large a workhouse as yours, containing as it does, on an average, nearly 2000 inmates, should be a married man. Quite one-half of the patients are females, many of them suffering from diseases which render the attendance of a married medical gentleman far more proper than that of a single one.

"I would add, that I occupy the same apartments which would be required for a single man, viz.—a sitting-room and a bedroom."

Writing to the Poor-law Board, Mr. Bennet says : –

"I would respectfully call your special attention to the fact that the consideration of my letter to the guardians is deferred till the very day on which the new medical officers will be elected.

"The junior medical officer, Mr. Haydon, will also lose his appointment, though unmarried. The reason alleged for *his* dismissal being that he is too young. He is in his twenty-fourth year, and has held the office of resident medical officer to Charing-Cross Hospital.

"From never having had any charge brought against me during the eight months I have held office, I cannot but think that the new arrangement has been resolved on from some private motive—that there is some under current at work."

It seems that the Guardians who were present when his letter to the Chairman was read, admitted the injury done to their officer, and that he had a full claim to compensation ; still they would not allow him to present himself as a candidate for re-election. The Poor-law Board has not yet replied to Mr. Bennet's communication. It is to be hoped that they will interpose their authority, and not suffer a man well qualified to fill the post which he occupied, and on whom no shadow of suspicion fell, to be dismissed without the vestige of a reason why, and without a full compensation for the inconvenience and loss he may sustain. Better that the Profession should scorn all such appointments, and seek its character elsewhere, rather than expose itself to insult and injustice, such as the present St. Pancras Board of Guardians, with a Justice of the Peace at its head, has face enough to perpetrate in open day.

Notes on Current Topics.

REGISTRAR-GENERAL'S RETURN.

THE public health for the last three weeks has risen and fallen in the same way as the temperature. This is well seen in the mortality from diarrhœa. Thus the deaths in the ten large English towns from this disease, which, in the two previous weeks had been respectively 507 and 577, declined last week to 436. Last week the annual death-rate from diarrhœa was 2 per 1000 in London and Bristol, 4 in Newcastle, 6 in Liverpool and Salford, 9 in Sheffield, 10 in Birmingham, Manchester, and Leeds, and 13 in Hull. The deaths in London from diarrhœa were 114, of which 106 were children, and only 8 adults. But the total mortality of London was below the average by 100, being only 1138, while the average for the corresponding week of the year corrected for increase of population would be 1238 deaths. The weekly number of deaths from diarrhœa in London have been since the beginning of July respectively, 54, 115, 170, 196, 217, 189, 196, 226, 198, and 203 — the decrease, therefore, in the present return is considerable. The annual rate of mortality last week per 1000 was 19 in London, 21 in Edinburgh, 24 in Dublin, 20 in Bristol, 28 in Birmingham, 29 in Liverpool, 35 in Manchester, 33 in Salford, 28 in Sheffield, 37 in Leeds, 40 in Hull, 34 in Newcastle-upon-Tyne, and 22 in Glasgow. From cholera or choleraic diarrhœa there have been 12 deaths; from typhus, 44; from small-pox and measles, 15 each; from scarlatina, 34; from diphtheria, 3; from whooping-cough, 16. A death from sun-stroke also is recorded of a child six years of age on the 14th September; and the deaths of four persons, who were killed by horses or carriages in the streets.

MORTALITY IN HOSPITALS.

WE are surprised to observe that in his observations on this subject at the Social Science Congress, Sir James Simpson made use of an argument which carried its own refutation, and completely invalidated his conclusions. He said :—

"No doubt the hospitals afforded by far the greatest advantage in respect of medical advice and care, yet the conclusion is most startling. The report of the French Commission stated that in hospitals there was one death in thirty, whilst of the same class at home, only one in 212 die."

It is hardly necessary for us to point out that cases admitted to hospital are necessarily and uniformly those suffering from dangerous, and often hopeless, disease, while those treated out of doors are of such little gravity that it is not thought necessary to admit them. There is, therefore, no parallel whatever between the mortality of intern

and extern patients. Furthermore, we are strongly of opinion that one death in thirty cases, though it may correctly represent the mortality in foreign hospitals, is greatly in excess of the rate in English, Irish, or Scotch institutions.

A STRANGE DEATH.

A POST-MORTEM examination was made in the County Hospital at Exeter on the body of a boy about 16 years old, who died from having swallowed an arrow-head which he picked up in the street, and began playing with in his mouth. He was taken to the hospital in the first instance, but the medical staff decided that nothing could be done, and he consequently died. On opening the body the arrow-head was found in the lungs, and stopped up the lower portion of the windpipe.

GODFREY'S CORDIAL.

THE pernicious practice of administering narcotics to children to quiet them, or to avoid the trouble of proper and careful attention cannot be too severely condemned. If no fatal consequences ensue, the drug constantly applied must necessarily be injurious to the child. Not unfrequently, however, death ensues. We have an instance in an enquiry by Mr. Payne, the city coroner at Guy's Hospital, respecting the death of an infant six weeks old, to whom a dose of Godfrey's cordial was given. She slept for ten hours, and the mother being alarmed took her to the hospital. The surgeon, Mr. H. Taylor, applied galvanism, which kept her alive nine hours, but at length she died. Can nothing be done to stop the sale of such nostrums?

OPIUM-EATING.

YEARS ago we were familiar with the fact of Chinese opium-eating, but we did not even dream at the time that the practice was prevalent in any part of England, or to what an extent it was carried. How long it may date back we are not prepared to say, but it prevails very widely and has become quite an inveterate habit in the Fen country—in Norfolk and parts of Licestershire. A few of the figures communicated by Dr. Hawkins, of King's Lynn, will no doubt astonish many of our readers. He says:—

"One Lynn chemist sells an average of 170 lbs. of solid opium in the year, besides six gallons of laudanum, and as many of "Godfrey's Elixir."

Again he relates the following case—

"A farmer came in to get some laudanum—'How many drops,' asked the chemist? 'Drops!' was the reply, 'Give me an ounce and a half.' The chemist saw he was in the habit of taking it, and gave him the dose. He drank it off, returned twice in the day for the same quantity, and took a half-pint bottleful home." "Dr. Hawkins fears that the habit is growing, and that it accounts for the great mortality of children in the district."

PAYMENT OF SUBSTITUTES FOR POOR-LAW MEDICAL OFFICERS IN IRELAND.

WE recorded some weeks ago that the Dundalk Board of Guardians had resolved that if their Medical Officer should be incapacitated for duty, except from causes arising in the direct discharge of his Poor-law duties, the Guardians would not pay his *locum tenens*. We repeated at that time, what we have before endeavoured to impress on our readers, that a Medical Officer being incapacitated from any cause whatever, is only required to *recommend* a substitute qualified to discharge his duties, it being distinctly understood by the gentleman acting as his substitute that the Medical Officer will pay nothing for his services. If this be done the Guardians *must* provide for the Medical relief of the poor, and cannot legally deduct a shilling of the salary of the Medical Officer during his illness. The Poor-law Commissioners have officially communicated these facts to the Dundalk Guardians in the following letter:—

"Poor-law Commissioners' Office, Sept. 2.

"SIR,—The Commissioners for Administering the Laws for Relief of the Poor in Ireland have had before them the resolution contained in the minute of proceedings of the Board of Guardians of Dundalk Union on the 26th ult., proposing that in future, whenever any Medical Officer of the Union be incapacitated for the discharge of his duties, except under the circumstances therein stated, the salary of such Officer be withheld during the period a substitute may be employed. In reference thereto the Commissioners desire to state that, according to articles 24 and 25 of the Dispensary Regulations, the Board of Guardians are required to pay each Dispensary Medical Officer such salary or remuneration as the Commissioners may from time to time approve of or direct, and that the salary of a Medical Officer shall be payable up to the day on which he ceases to hold the office. There is no provision of the Medical Charities Act or the Dispensary Regulations which would empower the Board of Guardians to withhold the salary of a Medical Officer during the period that a subordinate may be employed; but article 22 of the Dispensary Regulations gives the Guardians discretionary power as to the payment of the substitute out of the rates of the Union.—By order of the Commissioners, J. BANKS."

We hope the Dundalk Guardians like their answer. The fact is simply that the *locum tenens* must make his bargain with the Guardians before he attends a case, or else take the chance of their "discretionary power" under article 22.

Foreign Medical Literature.

CAN CHOLERA BE COMMUNICATED TO ANIMALS?

SOME EXPERIMENTS PERFORMED DURING THE EPIDEMIC OF 1866,

By Dr. H. SNELLEN and Dr. H. G. MILLER.

TRANSLATED BY

WILLIAM D. MOORE, M.D., Dub. et Cantab., M.R.I.A.;

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY, AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

[THE above paper, of which I propose to translate a considerable portion, has lately appeared in that excellent journal the *Nederlandsch Archief voor Genees en Natuurkunde* Deel III., Ie Aflevering, edited by Professor Donders and W. Koster. It has also been reprinted in a separate form, and to the authors I am indebted for a copy of the reprint. It appears to me to be unnecessary to reproduce the details of the numerous experiments described in the original, these will be sufficiently evident from the following remarks made by the authors upon the results of their investigations.—W. D. M.]

The object of the writers was to endeavour to solve the question: "How does the transmission of cholera take place, and what is the nature of its contagion?" To effect this, when observation fails, recourse must be had to experiment. But from the nature of the case, experiments on such a question in the human subject would necessarily be very limited. Undoubtedly it would be most important if, by experiments upon animals the questions respecting the contagiousness of cholera could be answered. We might thus hope, by a series of experiments, to ascer-

tain what matters are the carriers of the contagion, and by what route the infecting matter penetrates. And these inquiries are the more important, as being intimately connected with the problem, how the further extension of the epidemic may be prevented. The authors failed, however, in their endeavours, to develop cholera in animals. But an absolutely negative answer to the question, "Can cholera be conveyed to animals?" appears not wholly devoid of scientific interest, and they accordingly detail their experiments, and having done so, proceed as follows :—

If we recapitulate our experiments, we shall see that in thirty-seven instances food mixed with fæces was administered. The fæcal matters were derived from different cholera patients, and were employed quite fresh, or in different stages of decomposition. Seven times we administered vomited matters, eight times different parts of the body, once a poultice which had lain on a cholera patient. Moreover, we five times used hypodermically the fæces, vomited matter or blood of a cholera patient, twice such matters were injected into the jugular vein, once they were given in the form of enema. On one animal the inspiration experiments were fully tried, on all the others they were tried in some degree, all having been exposed for a longer or shorter period in a damp cellar to the exhalations of the matters employed.

We saw with interest that, simultaneously with ours, similar experiments were performed also at Amsterdam, by Dr. Stokvis and Dr. Guye.[1] Thirteen experiments were made with injection into the stomach, all with a negative result. Eight were made with inspiration of the air sweeping over cholera fæces, all of which likewise afforded negative results. Fourteen experiments were instituted with subcutaneous injection, in thirteen of which the results were negative ; injection into the blood was tried in six instances, in four of which the results were negative. Of the forty-one experiments, therefore thirty-eight yielded a constantly negative result. In the three others a positive result followed, it is true, the injection of fæces under the skin and into the blood, in so far as speedy death ensued ; but these experiments also afforded a decidedly negative result, so far as cholera or choleraic symptoms were concerned. Neither any considerable diarrhœa, nor fall of temperature, nor diminution of the urinary secretion, nor any anatomico-pathological change in the intestinal canal after death was met with in these instances. These experiments were tried upon rabbits, dogs, pigeons, and frogs.

We may here refer also to the experiments performed at Berlin, also during the present epidemic, by Dr. P. Guttman and Dr. A. Baginsky.[2] The introduction of cholera-excreta into the stomach was not followed by the slightest morbid phenomena. On the other hand, three rabbits and a dog died after the hypodermic injection of fæcal matter ; these animals died, however, "not with the symptoms of cholera, but, if we will make use of an obscure idea, of blood-poisoning."

A comparison of these different experiments, all made during the present epidemic, shows decidedly, that to animals, at least to pigs, dogs, monkeys, rabbits, fowl, pigeons, frogs, and fishes, *cholera cannot be communicated by infection.*

Are animals, in fact, not susceptible of cholera? or is it, perhaps, not by the way of infection that this disease is transmitted? Must we revert to the idea of the miasmatic nature of cholera? Are the cosmo-telluric elements those which produce its development? Is it, according to Petenkofers present theory, the decomposing matters in the soil which, where the water stands low, become by infection with cholera-excreta, the active poison? It appeared to us to be of the highest importance, keeping these questions in view, to test the capacity of animals for cholera. It is evident that with this object we have only to expose our animals to the same influences, under which it appears that men have become affected. For this purpose Utrecht presented us with the best opportunity. We have met with a great number of animals in or quite close to dwellings where men were seized with cholera. Under such circumstances we have observed a great number of horses, horned cattle, pigs, goats, sheep, dogs, cats, rabbits, fowl, pigeons, and particularly small birds. As to the last, we may state that among the cholera patients visited by us, we met with various pigeon-breeders and bird-fanciers, while, moreover, especially in the district of the Wittevrouwenstraat, many households seek to increase their incomes by breeding canary birds. We there found, and sometimes even in the bedsteads on which the sick lay, the cages with birds.[1] In our investigations we have everywhere found these animals in the best condition. We found only, besides the pig already mentioned, (see experiment I.), in the Gasthuissteeg, 166 g., on the 7th August, two young cats with diarrhœa. At the same time a child there had diarrhœa. The man of the house had been on the 18th of June attacked with cholera, but had then long since recovered. From the 6th of July no cholera had occurred in the entire Gasthuissteeg (Hospital-lane.) On the following day, the 8th of August, one of the cats was dead, the other recovered.

On post-mortem examination there was no appearance of cholera : the bladder was full, the intestines were not red, the blood was not tarry, but exhibited normal coagula ; the cause of death was not evident. Another case, which deserves to be mentioned here, is that of an old cockatoo in the same house in which our experiments were performed. On the 24th of August it appears to be sick ; the feathers are not smooth, it refuses to eat ; the bill and tongue are extremely cold ; *the animal vomits repeatedly*, so that the bill and the breast are constantly soiled with vomit ; the fæces are about as usual ; the voice is not altered. On investigation it appears—and we quote this because it not improbably has been on other occasions during epidemics the cause of apparent cholera among domestic animals—that during the last few days the necessary drink has, through neglect, not been given. The poor brute suffers intolerable thirst, and drinks with evident eagerness. Under better care, it was on the 28th, quite recovered.

Neither in the Zoological Garden at Rotterdam, nor in that at Amsterdam, was any decisive proof of the existence of cholera observed. Mr. Martin, director of that at Rotterdam, had the kindness to inform us that, with the exception of the occurrence of rinderpest, the state of the animals' health was this year unusually favourable. In no class was any particular tendency to diarrhœa observed ; on the other hand, some attendants on the animals in the garden itself, were attacked with cholera.

This result of our investigations is quite at variance with a number of opinions on record in recent works. Spinola says :[2]—"The observations, that in places where the cholera rages among men, birds are few, and birds of passage rarely appear, that cholera years, in general, are accompanied with woods exhibiting little life, and with bad field sports ; that diseases of animals, especially diarrhœas, are frequently met with—sufficiently indicate the importance which cholera has also for the animal world." In Hering we read[3] :—"In places, where Asiatic cholera prevailed among men, a remarkably morbid constitution was frequently observed among domestic animals and fowl,

1 Conf. *Ned. Tijdschrift voor Geneeskunde*, 1866, 2 Afd. p. 284 ; "Experiments on Infection in Animals with Cholera-excreta," by Dr. B. J. Stokvis.

2 *Centralblatt*, 1866, No. 44, p. 689. Zur Cholera. Einige Versuche an Thieren.

1 In the *Repertorium*, 3rd year, 1849, we read at page 96, "*Supposed influence of the vicinity of cholera patients upon birds.*" The following has been communicated to us by a trustworthy person from Utrecht :—"At the time of the recent epidemic a number of cholera patients were transferred, for want of room, from the hospital in the Begijnenhof there, to the Passantenhuis in the Lange Nieuwstraat arranged as an hospital. In a lane between this street and the Nieuwegracht, is the entrance to the building. In an enclosure immediately adjoining this lane, an aviary is kept, furnished with wirework, and standing in the open air. In this were twenty-two small birds of different kinds, which at the time appeared perfectly well, among which at least no death had lately taken place. Of this number, on the day after the change, fourteen were found dead!"

2 Dr. Werner Th. Joseph Spinola : *Handbuck der Speciellen Pathologie und Therapie für Thierärzte*, 2 Bd., p. 406.

3 Dr. E. Hering : *Spec. Pathologie und Therapie fur Thierärzte*, 1858, p. 421.

which, in some instances, was said even to have preceded the outbreak of cholera among men ;" and in Griesinger,[1] "The possibility of animals being affected with cholera appears in general to be proved moreover by many epizootic invasions, which accompanied especially the first epidemic of cholera, and which attacked at one time poultry, at another, horses, cows, &c., sometimes to a very great extent, and with characteristic symptoms, highly analogous to those attendant on human cholera." On the contrary, Gleisberg says :[2] "Cholera does not occur in animals."

We shall not here quote all the particular cases communicated, respecting observations of cholera in animals. On this point we recommend the perusal of the important work of J. Marshal.[3] In the contributions of Dr. B. J. Stokvis, already mentioned, we find a complete summary of all earlier communications on this subject. Every one will certainly, with interest, take cognisance of the literature there quoted in detail. Meanwhile, we would by no means venture to subscribe Dr. Stokvis' conclusion.[4] "Now, however different epidemics have furnished us with materials for observation, now, conviction on this point is possible. And what is this conviction? I believe that it must be a positive one, recognising the test as decisive, and no longer subjecting to doubt the capability of animals for cholera."

It is remarkable that the statements respecting cholera in animals, appear the more positive and more convincing, in proportion as they are of older date and come from more distant parts. From Holland, we have only one scientific contribution.[5] "Observations respecting similar diseases in different kinds of animals, and conformity of the same in morbid phenomena with the contemporaneously prevailing cholera in man, by J. A. Dekker, Imperial Veterinary Surgeon of the first class at Amsterdam." Dekker, during the cholera epidemic, 1848-1849, found a more general tendency among animals to diarrhœa, vomiting, dulness, rapid sinking of the strength, and emaciation. He observed this in the Zoological Gardens at Amsterdam, and also in his civil practice. He describes five cases among monkeys, in which, according to him, the symptoms were quite analogous to those of cholera, and which terminated fatally. He states the same of many other animals, among which are ruminants, dogs, rodentia, &c. Even at the time, Dekker's statements were vehemently contradicted.[6] The post-mortem examinations reported by Dekker, give us very little security for the adequacy of the grounds upon which the cases were looked upon as cholera.

Before a co-existent epizootic be admitted to be cholera, sound criticism requires: 1. That there be a conformity in the morbid process ; 2. That anatomico pathological conformity be established on post-mortem examination ; and 3. That the outbreak of the epidemic also, do not want the marks recognised as peculiar ; this last with respect to the time and place of outbreak, as well as to the nature of the contagion.

At present "rinderpest" prevails contemporaneously with "cholera" as an epizootic. No one therefore thinks of a connection between cholera and rinderpest. If the facts connected with the subject were less known to us, as is the case with communications of earlier date and from more remote localities, the contemporaneous occurrence of the two might probably be received as a strong proof.

The rinderpest at present prevailing has only this in common with cholera, that the disease is limited to particular animals.[1] Only ruminants are susceptible of rinderpest. Man is not attacked by it.[2] The fact is therefore not so anomalous, that cholera cannot be conveyed from man to other animals.

Utretch, January, 1867.

1 Virchow's *Handuch für Spec. Pathologie und Therapie*, 2 Bd., 2e Abtheilung, p. 259.
2 Dr. J. P. Gleisberg: *Lehrbuch der vergl. Pathologie*, p. 68.
3 J. Marshal: *British and Foreign Medico-Chirurgical Review*, 1853. We find these contributions quoted at length in *Repertorium der Thierheilkunde*, von Prof. E. Hering, 14 Jahrg.; The Veterinarium, edited by Percival, vol. xxvi., 1835; Canstatt's *Jahresbericht über die Fortschritte der gesammten Medicin im Jahre*, 1853, Bd. vi., Thierheilkunde, p. 16, and Repertorium van v. Hasselt en Hekmeijer, 3e Deel, p. 125.
4 P. 285.
5 *Het Repertorium*, 2e Jaargang, 1848, p. 185. Ibid., pp. 254 and 273. Derde Deel. p. 94.
6 Conf. *Genesk. Courant*, 19th August, 1848, No. 33. "Does Cholera attack Animals?"

SOCIAL SCIENCE CONGRESS IN BELFAST.

SIR JAMES Y. SIMPSON'S ADDRESS ON PUBLIC HEALTH.

Sir James Y. Simpson, after apologising for not having been an earlier attendant at the present Congress, delivered an address on this subject. He said that public health might be defined as public wealth. It was important to attend to it, because, in relation to disease, prevention was much better than cure. At the outset he referred in some detail to the great evils which arose from the overcrowding of dwellings in great cities and towns. Nature had everywhere provided a bountiful supply of that most essential requisite for healthy life, pure air. Man everywhere endeavoured to contract this supply, and to putrefy and corrupt it by the internal arrangement of his dwellings. Outside his dwellings also, in entire disregard of the laws of health, or the manner in which manure and sewage are allowed to collect in rural and other districts. He humorously referred to the way in which foul matter was allowed to collect in the inferior class of Irish hovels, in consequence of pigs and other animals being allowed to occupy them with the inmates. Some years ago a doctor, visiting an Irish family located in the upper story of a large house in Edinburgh, found an immense pig, and asked a man in the room how it had been got up stairs. "Faith, yer honour," the man replied, "she never was below." In the country districts, worst off in these respects, the people were better off than in the towns, and human life more prolonged in the former than in the latter. In cities, besides the confinement of the smaller streets, lanes, and alleys, there was an enormous evil influence arising from the foul and pestilential exhalations of refuse matter, gas-lights, manufactures, &c. Pigs and other such animals had, however, long since been banished from human habitations in Edinburgh, as he maintained they ought to be from the abodes of men everywhere else. Cow-byres, and even stables for horses, ought to be banished out of every town. In Westminster there are 1000 houses vitiating the air required for 30,000 human beings. In Edinburgh, still, they had splendid house-fronts, and confined squares and spaces behind them, in which the air was poisoned by offensive exhalations. A splendid problem for modern science to solve, and statesmen to carry out, was—What was to be done with the vast amount of their sewage matter? For it, as well as for everything else, there was a natural use ; and he believed the time was coming when they should not toss so much of it into the sea as they did. The true use to make of it was to return it to the soil. The value for each human being was calculated at ten shillings a-year, which gave £70,000 worth of sewage wasted every year in Belfast. We have various kinds of hospitals—medical, surgical, obstetrical, &c. There are as yet, unfortunately, no means of making a general comparison of the comparative efficacy and cost of hospital and home treatment. Materials of the kind have been provided with respect to obstetrical hospitals. In the great Rotundo Hospital in Dublin, than which there was not a better in the world, the cost of each patient was about thirty shillings. It was found that the cost of treating the same class at home was about ten shillings. Now the pecuniary loss in hospital treatment was a matter of no small moment. The French Government issued a commission of inquiry, which collected statistics on this subject of nearly a million cases from all the hospitals of Russia, Prussia, Swe-

1 In December, 1866, one of us placed an ass in a stable with five cows, among which the rinderpest had appeared, and so that the ass stood between the sick cows, and in immediate contact with them. The cows died one after the other, and the ass continued perfectly well.
In the acclimatisation-garden in the Bois de Boulogne, at Paris, C. Leblanc observed, that in addition to the common cow, the following are susceptible of this disease:—the zebu, the yak, the bison, the gazelle, the goat and the hart, but not the sheep.—*Journal de Médecine vétérinaire*, December, 1865, p. 564.
F. C. Hekmeijer has succeeded in conveying the rinderpest also to sheep, by inoculation.—*Magazin voor Landbouw en Kruidkunde*, D. vi., 1866-1867, p. 105, and *Ned. Staats Courant*, 11th October, 1865.
2 *Ned. Tijdschr. van Geneesk.* 2e Reeks, 3e Jaargang. F. C. Hekmeyer, "Does the Contagion of Rinderpest pass over to Man?"

den, Denmark, Great Britain, Germany, Switzerland, and 900,000 cases of poor patients confined in their miserable hovels. Now, the hospitals afforded by far the greatest advantage in respect of medical advice, care, &c. Yet the conclusion afforded was most startling. The report stated that in hospitals there was one death in thirty, whilst of the same class at home only one in 212 die. It had been found the same all over Europe. With regard to surgical and medical hospitals, the collection of patients, and the exhalations proceeded from them and their wounds and diseases, into comparatively small spaces, could not but be pernicious. One patient labouring under a contagious disease often caused the spread of it through the hospital. In the hospital with which he was connected, after a case of cancer had come in, it was often found necessary to stop operating for a week or ten days, because it was found that after the arrival and partial treatment of such cases, all the other cuts, and dressings, and sores began to go wrong. The man treated in a surgical hospital was exposed to more chances of death than the soldier on the field of battle. In cases of amputation the mortality had been found far higher than surgeons thought a few years ago, different statistics giving it at one in three, and one in two. Was it the same in private and in country practice? We have no data as to this, and Government or some other power should provide them. But the impression of medical men was, that the private practitioner found no such mortality after his operations. An old medical friend of his in London, who highly approved of bleeding, used to say that the way in which operations were bungled in the country was the means of saving the lives of the patients by the bloodletting that was caused. The great object in hospitals was to increase the amount of pure air for each patient. The learned gentleman gave statistics of the yearly mortality of inflammation of the lungs, bronchitis, and various other diseases. Any one who went into an empty room which had been shut up for a few days would find it smelling musty, in consequence of the decomposition of small material particles. Everything, in fact, was secondary to pure air. Mr. Hepworth Dixon, in an account of the settlement of the sect called Shakers at Mount Lebanon, in America, mentioned some interesting facts. The married women there lived as nuns, and the men as monks. They had no doctors among them, and took close scientific care of ventilation. Every building was provided with shafts, fans, flappers, and vents. Stoves were so delicately adjusted, as to keep the temperature in winter within one degree of warmth. The Elderess, or Queen of the community, told him that they had had only one case of fever during thirty-six years. The Head Elder said good food and sweet air were their only medicines, and said to him, "Is it not strange that you wise people of the world keep a set of men called doctors, who lie in wait for you until, by some mistake of habit, you fall sick, and then come in and poison you with drugs?" How were our hospitals to be improved? They should be given up or greatly altered. It was now an important point of dispute how many cubic feet of air were required by each individual per day. He had often thought that if their hospitals, from being crowded palaces, with a lair of sick in each flat, were changed into villages or cottages, with one or, at most, two patients in each room, a great saving of human life would be effected. The village should be so constructed, of iron or wood, as to be moveable, so that it could be placed where required; and in case of epidemics the accommodation could be easily increased. He would pass to another subject, namely, the dreadful mortality among children. Having given statistics of this mortality, he attributed it to the ignorance on the part of mothers and nurses of hygienic laws. One great requisite for infant children was pure air; but it was essential that the air should be warm. Cold air was most destructive. Nurses would insist on shutting windows, and other apertures which ought to be left open. In Belgium, where children had to be brought out for baptism when only a fortnight old, one-half more died in winter than in summer. Want of clothing of the neck and arms of the child was also mischievous. Like all other young animals, the heat-producing power of the child is much less than that of the adult. For his own part, passing from the children to the mothers, he would be much disposed sometimes to cut off a portion of the ladies' skirts in order to clothe their necks and arms. Children should never be allowed to sleep in the cold. He was sorry to say that he had often known lady mothers to carry dirty dogs in their arms, and yet not be willing to carry the children that God had given them. What a shame, too, to put children into cold baths—little creatures that should be always warm! In a Highland regiment in which that practice prevailed amongst the wives of the men—hardening it was called—enough of the children did not live to make pipers for the regiment. The mother's milk, which God made, was better for the infant than any human composition. He then alluded to the mortality caused by the criminal starving by mothers of their illegitimate children. It was recorded of the foundling hospitals which formerly existed in Ireland that from 1791 to 1796 the number of children admitted into them was 12,686, and that, of these, 135 walked alive out of the hospitals, and the rest were carried out in the dead cart. The learned gentleman next referred to the greater mortality amongst unmarried than amongst married men. He did not know how to cure this. But if these desolate, deserted adult foundlings did not learn that it was better to perpetrate matrimony than suicide, they would find themselves figuring in the next Act of Parliament for the protection of public life. He then referred to the famous Jenner's invaluable discovery of cow-pox. It saved 80,000 lives every year. The Government ought to be able to stamp out the small-pox as well as the cattle plague, but improved regulations were still needed for this. In Scotland the people infected were prevented from going into public vehicles. Having referred to some of the absurd prejudices which had been entertained against cow-pox, and to the antagonism which it even still encounters from some, he said that Jenner's discovery was the means of saving a number of lives equal to the whole population of the United Kingdom every 25 years. He received £30,000. Had he slain a hundred thousand men in battle he would probably have got much more, and have been made a duke. The French erected a statue to him at Boulogne. A few years ago one was erected, by subscription, in Trafalgar-square. It had been since removed, with the sanction of the House of Commons, to make room for some of those fighting Napiers. He trusted that the reformed Parliament would have better judgment.

The assembly then adjourned to the sections.

Correspondence.

THE ROYAL LONDON HOSPITAL FOR DISEASES OF THE CHEST.

HAVING published the circular of Drs. Richardson, Leared, and Powell last week, we feel bound to afford space to Dr. Dobell's reply. Now that the medico-ethical immolation of the medical officers of the institution has resolved itself into personal recrimnation, we must, unless some matter more interesting to our readers should turn up, close the correspondence as far as our columns are concerned, merely observing that the gushing chivalry of the medical officers who resigned in vindication of the honour of the profession seems to be conclusively disposed of:—

"TO THE GOVERNORS OF THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

"84, Harley-street, September 20th, 1867.

"GENTLEMEN,—I regret that I am again compelled to occupy your attention in consequence of the issue of a second circular by your late medical officers, Drs. Richardson, Leared, and Powell.

"After carefully reading that circular, I am obliged to state that it consists throughout of a laboured attempt to pervert and evade the truth.

"The insult aimed at the council of clergymen and gentlemen who drew up the answer to the first circular, I must leave for you to deal with as you think proper.

"The statement with respect to Dr. Powell is a palpable evasion of the truth, and has been already settled by the Council.

"The minute of the Medical Council of July 3, 1866, is as follows:—

"'A discussion occurred on the question of Dr. Powell's aspirations to become Physician or Assistant-Physician to the Infirmary, in which it was urged by Dr. Dobell that the law requiring the candidates for the office of Physician to be Members of the Royal College of Physicians of London, ought to be kept inviolate, as most important to the position of the hospital, both with the Profession and with the Public; and that if the office of Assistant-Physician were ever created, it should be governed by the same law as to qualification as the office of full Physician. Dr. Dobell expressed his regret at

being forced to oppose the advancement of Dr. Powell in this instance, and stated, that if Dr. Powell had been a Member of the College of Physicians it would have given him pleasure to have recognized his claims as a candidate for the office of Physician. It was finally resolved that:—'That the Medical Council finding that there are two days of attendance vacant at the Infirmary, are compelled to suggest that the Committee advertise for a Physician to succeed Dr. Althaus.'

"At the Meeting of July 26th, 1867, Dr. Richardson and Dr. Powell, in a most offensive manner, refused to confirm this Minute, thus renewing the quarrel as to Dr. Powell's qualifications; and since that day they have not been friends with me.

"Next, as to the 'real causes of Resignation'. (See Circular).

"No. 1—refers to an occurrence five years ago, and is untrue, as shown by the following Minute of Medical Council:—

"'July 28th, 1862.—Meeting called *by desire of the Committee of Management*, to consider the expenses incurred for drugs at the Infirmary. The analysis of the expenses was submitted to the Council, and it was found that the excess of expense on behalf of Dr. Richardson was due to the use of large quantities of Peroxide of Hydrogen. Dr. Richardson regretted to find that the medicines used by him were so expensive, but considersd them to be of such value that he could not conscientiously withhold them. He stated that he would reduce the quantity used to the lowest practicable amount—this statement to be submitted to the Committee of Management—Confirmed, March 13th, 1863,

"'B. W. RICHARDSON.'

"The Council will be able to deny that I ever let the Hospital pay for 'extravagant experiences.'

"With regard to Dr. Leared and the Turkish bath, the truth is shown by the following Minute of the Medical Council, May 17th, 1864:—

"'Dr. Leared proposed that a Turkish bath should be erected at the hospital for the purpose of experimenting with it in the treatment of consumption.' 'Dr. Dobell stated that if the infirmary had been a general hospital, he would at once have seconded the proposal to erect a Turkish bath, in order that the physicians might try it in any cases they thought proper; but that as the infirmary was a special hospital, the erection of a Turkish bath for the treatment of the patients would identify such treatment with a certain class of disease, and both the profession and the public would consider the staff of the infirmary committed to the treatment of chest disease by the Turkish bath. Therefore, supposing it to fail, the reputation of the institution, and that of its staff, would be seriously endangered. He therefore should oppose the introduction of the bath, until it had been more extensively tested outside the walls of the infirmary. He hoped Dr. Leared would prosecute his experiments on a wider scale, at some public bath, and report again. Dr. Althaus agreed in the main with these views; and Dr. Leared said he did not wish to push the matter, unless his colleagues were unanimous in its favour. Confirmed.—J. ALTHAUS.

"It is a fact that after this I materially assisted Dr. Leared in obtaining permission of the Council of Management for his experiments to be carried on at the expense of the hospital at a Turkish bath in the neighbourhood, and that Dr. Leared availed himself of this permission to a very large extent, as shewn by the payments made to the bath. But to this day he has not reported a single result of his experiments to the Medical or General Council.

"No. 2—is almost too trivial to notice. The facts being that two good-looking pictures, framed and glazed, one of which was an ornamental almanack, were sent as a present by the Secretary of the "National Union Life Office," who was a governor of the hospital; and as the walls of the physician's rooms were bare, one was hung in each room. The names of Dr. Sieveking, Sir Henry Thomson and myself, and of the directors of the company, were certainly on the pictures, but in the most unobtrusively small print. I was astonished to hear one day, accidentally, that these pictures annoyed one of my colleagues, and I had them taken down immediately.

"No. 3—is not truthfully stated. The facts are that Mr. Pattison, a maker of respirators, had for several years presented every winter, a number of respirators to the hospital, which had been distributed by the physicians in the out-patient's room, year after year. At last he asked to hang in the hospital waiting-room a notice of the very low price at which they could be purchased. Being asked, as Honorary Secretary, if this might be done, and knowing that patients were continually enquiring where to get cheap respirators, I said "yes." But soon after, hearing from the dispenser that some objection had been made to the notice, I had it taken down directly.

"No. 4—is quite untrue. It refers to an occurrence in 1863, fully explained at the time, and I had no idea it still rankled in Dr. Richardson's mind. It was an annual dinner, and I, being the senior Medical Officer present, the Secretary gave my name to the Chairman and asked me to respond. When the toast came on, the Toastmaster called upon me. I rose to respond, not having seen that Dr. Richardson in the meantime had arrived. Dr. Richardson rose too, and after a word of explanation to the Chair, I sat down, and gave place to Dr. Richardson. It was a pure accident, which any gentleman ought to have been able to understand and forget.

"No. 5.—The last part of this clause has been already disposed of; the second part is not true; the rest is amusing. The Secretary to the Medical Council, (not the Council of Management), is elected yearly by the Medical Staff; and I have been kept in that post against my own often expressed wishes to be released, ever since 1860, because no one else would do the work. April 10th, 1862, a Minute appears, confirmed by Dr. Richardson—'Dr. Dobell complained that no notice had been taken of his summonses to attend the Medical Council, and declined to act as secretary, unless they should in future be responded to.'

"No. 6—is most gratuitously false. The words, 'not practising Midwifery or Pharmacy,' were introduced by the secretary with the *written* consent of a majority of the Governors who had been present at the Meeting referred to, and were confirmed by a subsequent General Court of Governors, at which I was not present. Whether this proceeding was strictly formal or not, the responsibility of it rests with the Council and Governors, not with me.

"No. 7—called 'the most serious matter of all,' is untrue in every statement, and if any insult was offered on the occasion referred to, it was from Dr. Powell to me. The succeeding paragraph, which represents that rather than run the chance of incurring my 'censure,' Drs. Richardson and Powell delayed an urgent operation which they confess 'should have admitted of no obstacle and no delay,' until they could get Dr. Davie's protection, would be unbelievable had they not stated it of themselves. If, however, they felt in such pearl, Mr. Adams, the Consulting Surgeon, would have been, under the circumstances, their natural protector, not the Consulting Physician.

"The 'Diet Scale' question has already been settled in a previous correspondence, and if referred to at all, it would have been simply fair to have quoted the *cheap diet* prescribed for the large majority of patients, instead of selecting the only expensive diet on my list, of which I have already explained that it is very rarely used, being especially arranged for a few peculiar cases.

"The '*question of attendance*' and of the 'Attendance Book,' belongs to the Council, not to me. But I must express my regret that a charge should be brought against the late Mr. Smart, which can in no way effect either the Council or myself, seeing that it is stated that Mr. Smart acted 'unofficially.' I have heard of this with astonishment to-day for the first time, and if there ever were a particle of foundation for the charge, it is strange indeed, that Dr. Richardson never complained of it either to the Council or to me during Mr. Smart's life-time.

"And now for the last paragraph but one of the Circular (in which the first and concluding portions contradict each other). It is true that on July 26th, 1867, 28 days before the date of the first Circular issued by Drs. Richardson, Leared, and Powell, at a Meeting of the Medical Council a hot discussion occurred in consequence of Dr. Richardson and Dr. Powell refusing to confirm the Minutes of July 3rd 1866, already quoted. But *it is not true* that on that or any other occasion, one word was uttered by any of my colleagues on the subject of my occupying the post of Honorary Secretary to the Hospital, which is stated, in the first Circular of Drs. Richardson, Leared, and Powell to be the sufficient cause of their resignations.

"It is the fact, however, that in consequence of Dr. Richardson having on that occasion refused to admit the truth of some of my statements, I urged upon him, in writing, to meet me at the hospital in the presence of our colleague, Dr. Crucknell, and two members of council, one to be chosen by each of us, and promised that in their presence I would prove from written documents, that my statements were true and his were not. On

his objecting to the constitution of this tribunal, I proposed that, to meet his views, four Arbitrators should be appointed instead of three, two by him and two by me; and it is the fact that this proposal of mine for a fair and open investigation, at which any question or complaint might have been brought forward and settled, was evaded by the issue of the first Circular signed by Drs. Richardson, Leared, and Powell, dated 22nd August,—an act which I leave to the consideration of every lover of fair play.

"I have only to add that the concluding paragraph of the Circular refers to matters which happened long before my connexion with the Hospital. But it can be easily answered by the Council, if they think it worthy of their notice.—I am, gentlemen, yours very faithfully. HORACE DOBELL, M.D."

L'ESTRANGE'S PATENT TRUSSES.

WE are requested to publish the following letter to Mr. L'Estrange, in reference to the trusses invented by him:—

"MY DEAR SIR,—Although any additional testimony to the efficacy of your patent truss might seem unnecessary, I am induced to record the following remarkable instance of its success as an act of justice at once to you and to those who might stand in need of it.

"Some time since I was consulted by a Head Constable of Constabulary for symptoms of dyspepsia. He had suffered from it for years, and a variety of treatment had failed to give relief.

"I discovered a very small inguinal hernia, to the presence of which I attributed the obstinate and very distressing dyspepsia. He was a very stout, short man, and his duties of a very active nature. His obesity rendered the retention of a truss in its proper position most difficult.

"A number of trusses (various patents) were tried in succession, under my own especial surveillance, and all failed signally.

"I now sent him up to Dublin, to get one of your patent trusses. The result was most satisfactory. The truss not only retained its proper position, and effectually kept up the hernia, but, after wearing it some time, the hernia ceased to descend—in fact the passage was obliterated. I made him wear it for some time longer as a matter of precaution. He has long since left it off, and both hernia and dyspepsia have completely vanished.

"As I before said, I consider this statement due both to you and to the public.—I am, dear sir, your most obedient servant,

"ZACH. JOHNSON, A.M., F.R.C.S.,
Surgeon Kilkenny County Infirmary.

"To Fras. L'Estrange, F.R C.S., &c., Dublin."

A HOMŒOPATHIC MISUNDERSTANDING.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I shall feel obliged by your publishing the following correspondence that has taken place between Dr. Cruise and myself, as I hope thereby finally to put a stop to the impression, still current, that I practise under the homœopathic system—a report which is altogether devoid of foundation.—I am, sir, yours truly, F. E. JENCKEN.

September 7.

SIR,—Having been informed by Mr. R. that you declined to meet me in consultation upon the case of his brother-in-law, I cannot refrain from expressing my unqualified surprise at your unprofessional conduct, and I request that you will state in straightforward terms what that objection is; I feel I have the more right to demand this as it was by my sanction that you were called in.—I am, sir, yours, &c.

F. E. JENCKEN.

SIR,—In reply to yours of the 7th inst., I beg to say that my objection to meeting you in consultation arose from my understanding that you practised homœopathy.—I am, sir, your obedient servant, F. R. CRUISE.

September 10.

SIR,—In reply to your letter of the 9th inst., I cannot refrain from expressing my astonishment at your still seeming to believe that I practise homœopathy, when the fact of my being a Member of the Royal College of Physicians of London—my having contradicted a statement of the kind in a letter to the Colleges of Physicians and Surgeons, Dublin, some years ago (when that false assertion, with other systematic persecutions, with quite as little foundation, were set on foot), and my belonging to the Obstetrical Society of this city, ought to have convinced you to the contrary. I sincerely trust that you were only prompted to act in so extraordinary a manner by your having been altogether misinformed with regard to my character and professional standing, as I consider it quite incompatable with the natural kindness and urbanity of the Irish disposition wilfully to wound the feelings of an unoffending professional brother.—I am, sir, yours truly,

F. E. JENCKEN.

September 12.

SIR,—I am in receipt of yours of the 10th, I cannot tell you how deeply grieved I feel to think that I have wronged you by my erroneous impression that you practised homœopathy.

I solemnly assure you that I believed, *bona fide*, that you were an homœopathist when I declined meeting you in consultation, and that this alone was the ground of my refusal.

Since then I have learned, both from your letter and from my friend Dr. Cronyn, that the report currently circulated about you is untrue. It is quite annoying to me how such a rumour can possibly have obtained such currency and general credence. Strange as it may seem, it is a fact, that until my conversation with Dr. Cronyn, I was unaware of your membership of the Obstetrical Society, and of the circumstance of your having on several occasions emphatically repudiated all connection with homœopathy.

As I know positively that a contrary impression is general, I would venture (if you will permit me) to suggest that you should publish our correspondence in the MEDICAL PRESS AND CIRCULAR. This step will set you right with the profession at large, and effectually check idle and groundless rumours.

Assuring you, on my own part, that nothing could pain me more than the thought that I had injured the repute, or wounded the feelings of any professional brother.—I remain, sir, your obedient servant, F. R. CRUISE.

REGISTRATION OF BIRTHS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—For the information of your correspondent in last number signing himself "Ante-di-obliging Birth Registrar," I send you the following list of qualified informants of births, extracted from the "Hints and Instructions," furnished to each Registrar by the Registrar-General:—

1st. The parent of the child, *or in case of his or her absence or inability.*

2nd. "The occupier" of the house in which the child was born; or

3rd. The nurse, or *any one present at the birth;* and in case of a new-born child found exposed.

4th. The person first in charge of such child.

Under the third head the Medical Practitioner in attendance is, no doubt, a most suitable informant; and except "there is some spleen in the case" I do not see how the Registrar could legally refuse him.

I am disposed to think he cannot do so under any circumstances.

In this instance there was an inability on the part of the parents to attend; and the Registrar was bound to register the birth on the information of the Medical Practitioner in attendance, he being *present at the birth.*—I remain, yours truly,

A DISTRICT REGISTRAR.

Gleanings.

ALCOHOL.—The influence and importance of alcohol may be judged by the statement that for its consumption in this country every year £70,000,000 of money is paid. There can be, therefore, no doubt that the primary constituent of fermented beverages is the alcohol. At the same time the price paid for it varies in each class of beverage. It is cheapest in beer and dearest in wine. The quantity of alcohol to the pint varies greatly in the various kinds of fermented drink. It is smallest in beers, greatest in spirits, and in mediocre proportion in wines. If we look at prices in connection with alcohol, we shall find that it is sold in beer, ale, and porter at about 2d. an ounce, in spirits at from 3d. to 6d., and in wines at from 6d. to 3s. or 4s an ounce. To those who drink fermented liquors for the sake of their alcohol it may be some consolation to know that beers and spirits are cheaper than wine. More depends on this fact than most people think of. The great majority of mankind drink fermented beverages for the sake of their alcohol. The cheap wines of France and Germany will

never be generally drunk in England till they are sold at a price that will make their alcohol as cheap as beer on the one hand, or low priced ports and sherries, or spirits on the other. Ports and sherries successfully compete with strong ales when they are so brandied that their alcohol is nearly as low priced as that of beer. The alcohol is the basis of wines, of spirits, and of beers, but what really makes any of these rise above the price of their alcohol in the market is the bouquet. It is the delicate hop flavour that makes Romford and Burton beers fetch a higher price in the market in proportion to their alcohol than the coarse stouts and porters of the London brewers; it is the fine bouquet of well-made gin, of old Jamaica rum, or of Cognac brandy that makes their price differ; and it is the exquisite and peculiar flavour of fair and old wines that win their high prices. Withdraw alcohol from the beverages of mankind, and they sink to the dead level of soups, toast-and-water, and tea.—*Athenæum.*

THE customs of the Medical Profession are peculiar, and the legal relations between the principal and his assistant differ considerably from those recognized under ordinary circumstances between masters and servants. The domestic servants, and even the traders' assistants, possess little or no influence over the persons with whom their duties bring them into contact and if they leave one situation to-day to take another in the locality to-morrow, their employers, as a rule, offer no objections, and do not experience any real or imaginary grievance. The farm labourer may work for Squire A this week and farmer B the next without any breach of good faith to either. The most highly skilled artizan may pass from employment in one factory to take another appointment in the immediate vicinity without injury to his late employer; and even the tutor or the governess pass from family to family in the same neighbourhood without any objections from those who have enjoyed the advantage of their services. In the solicitor's office the clerks rarely come in contact with the clients, or when they do so, they appear, not as "dispensers of law," or as legal advisers, but in the performance of some subordinate duty which gives little or no opportunity of displaying their legal knowledge, or gaining such influence over the client as to be able to transfer his business to some other attorney if the clerk changed his place of occupation. With the medical assistant the case is very different. The connection between the practitioner and his patients is—or is believed to be—more sensitive or delicate than that existing between any other professional class and its clients. The general public do not sufficiently estimate high medical culture and the value of enlarged observant experience. Many persons regard the art of healing to be an intuition, not an acquirement by laborious study and investigation; indeed they practically assert:—"*Medicus nascitur non fit.*" Great value is attributed to drugs which are to be swallowed; the skill required in the discovery of the nature and extent of the disease, or in the selection of the curative means, is overlooked; and hence, as the dispenser compounds the medicine, he is supposed to be as wise as the master who prescribed it. On the other hand the reputation of the surgeon may be imperilled by the carelessness or ignorance of an assistant; the right medicine may be sent with incorrect directions as to dose or mode of administration, or a lotion may be labelled as a mixture, or the pills intended for one patient, to whom they might be suited, may be sent to another, to whom they might prove fatal. Even the moral character of the medical assistant will affect his employer's connexion, for it is obvious that respectable families will not admit to their circle a man who is known to be dissolute; such an assistant might almost ruin a good obstetric practice. Hence it follows that in no other occupation of civilized life is the principal so dependant upon his subordinate, and in no other can the *employé*, if dishonourable, secure such dangerous influence over the *clientelle* of his employer. In no other occupation is the master so directly held responsible for the ignorance or incapacity of the servant; and in no other are the customary and legal relations between the parties so various, or the equitable conditions so complicated as in the Medical Profession.—*Baxter Langley's "Via Medica."*

THE attention of the authorities having been awakened to the necessity of preventing a repetition of the scenes described by Mr. Dickens, the Poor-law Board—the department charged with the duty of administering and controlling poor relief—issued a circular to the metropolitan boards of guardians, reminding them of their duties in this respect. This was followed by the framing of the Metropolitan Houseless Poor Act, 1864, and was further enlarged by the Metropolitan Houseless Poor Act of 1865. Into the details of these Acts we need not enter. Our purpose is to draw the attention of our readers to the remarks of Mr. Hardy, in reply to a question put by Lord Elcho in the House of Commons on the 21st August last. Mr. Hardy says. "one of the inspectors had given him information from which he gathered that in almost every union the Houseless Poor Act itself gave encouragement to vagrancy, a great number of people took advantage of the Act, and obtained lodging night after night at the expense of the several parishes." Mr. Hardy, on the strength of a twelvemonth's attendance at Gwydyr House, would wish to constitute himself *the* poor-law authority of the House of Commons, but his pathetic representation of the vagrant obtaining a night's lodging at the expense of "this 'ere parish" is worthy of one of the members of those boards of guardians who have brought the office into contempt. If Mr. Hardy had read the Act he referred to and the circulars issued from the Poor-law Board, he would have found that adequate precautions had been taken to prevent impostors obtaining benefit under its provisions. We trust the inspector referred to will at least be prepared with an efficient substitute before he seeks to undermine the existing Houseless Poor Act. We would remind boards of guardians that *they* are the sufferers, and bear the blame for the mistakes committed by amateur poor-law legislators, and that it is at them the press level their shafts when the paragraphs appear headed "Another Death from Exposure in the Streets," "Workhouse Neglect," and other sensational headings.—*Poor-law Chronicle.*

Medical News.

ROYAL MUNIFICENCE.—His Imperial Majesty the Sultan, before leaving England, deposited with the Lord Mayor the large sum of £2500, to be distributed among the poor of the metropolis, as a token of his appreciation of the welcome he had received during his visit to London. His lordship considered that the best mode for a proper distribution of the fund was to bestow it upon charitable institutions, and amongst these has included several medical institutions, as the Hospital for Consumption, Victoria Park, £100, and £50 each to the following—viz., the Infirmary for Children, the Guy's Hospital Maternity Charity, the City of London and East Dispensaries, the Farringdon Dispensary. the Royal South London Dispensary, the Metropolitan Dispensary, the Royal General Dispensary, the City Dispensary, the Truss Society, the Orthopædic Hospital. the Cripples' Home (Kennington), and the Convalescent Home (Mrs. Gladstone's)—making a total of £850 to medical charities only.

THE Marquis of Ourches has left, by his will, two sums, one of £800 and the other of £200 to be awarded, by the Academy of Medicine of Paris, to the person who shall discover the means of ascertaining, without the slightest doubt, whether presumed death is real or apparent.

DEATH FROM CHLORODYNE.—Elizabeth Saunders, Harleston, Norfolk, has been poisoned by chlorodyne. She complained that she was suffering from diarrhœa. Mrs. Arnold gave her a dose of chlorodyne, which had, as she thought, been prepared for her son, but which, it turned out, was undiluted. On discovering her mistake, Mrs. Arnold sent for Saunders, and gave her some antimony as an antidote. She was, however, left to go on her way, and was found, between ten and eleven o'clock, in a water-closet in the town, in a state of unconsciousness, and died at ten o'clock at night. An inquest was held on Monday morning, before Mr. H. E. Garrod, deputy coroner. when a verdict of "Accidental death from an overdose of chlorodyne" was returned.

LIFE IN LONDON.—The births in the metropolis have been expanding year by year. In 1852 the number was 81,250; in 1853, 82,254; in 1854, 84,885; in 1855, 85,532; in 1856, 87,430; in 1857, 89,577; in 1858, 89,012; in 1859, 92,909; in 1860, 93,414; in 1861, 97,064; in 1862, 97,850; in 1863, 102,119; in 1864, 102,625; and in 1865, 106,803. While there have been more births. there have also been more deaths, but the latter show great fluctuations. In 1852 they numbered 54,638; in 1853, 60,069; in 1854, 73,697; in 1855, 61,942; in 1856, 57,274; in 1857, 59,103; in 1858, 64,093;

in 1859, 61,860 ; in 1860, 62,309 ; in 1861, 65,251 ; in 1862, 67,371 ; in 1863, 71,060 ; in 1864, 78,238, and in 1865, 73,531. The increase in the population of the metropolis by the excess of births over deaths was thus as follows in each year :—1852, 26,612 ; 1853, 22,185 ; 1854, 11,188 ; 1855, 23,590 ; 1856, 30,156 ; 1857, 30,474 ; 1858, 24,919 ; 1859, 31,049 ; 1860, 31,105 ; 1861, 31,813 ; 1862, 30,479 ; 1863, 31,059 ; 1864, 24,387 ; and 1865, 33,272.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Every MS. should bear the Name and Address of the Sender.

The following communications are unavoidably held over :—
T. M. M.—Conclusion of Paper on Phthisis by Change of Climate.
W. H. Sandham on the Forceps.
Dr. Dick's Clinical Lecture.
C. H. Jones's Clinical Lecture.
Communication from Isaac Ashe.
Report of a Case at Meath Hospital.
Correspondence, Reviews, &c.

Mr. Ferguson, Brecon.—We do not remember the nature of the enquiry you mention having made some time since. If you will kindly repeat the same we shall be happy to give you any information that lies in our power.

Dr. Smith will please receive our apologies for the omission.

Dr. Elliott, Rochdale.—Your request has been attended to.

Dr. Hearne, Southampton.—Mr. Knott, about whom you wrote to us, has been liberated. It would, therefore, be useless for us now to touch upon the subject. Will you in future kindly send your communications not later than Thursday, as Monday is too late.

Mr. Steele, Liverpool, will please accept our best thanks.

Mr. T. A. Chubb.—Certainly. That was understood.

Professor Pemberton is thanked for his communication.

Dr. John Beddoe, Bristol.—Your communication shall, if possible, appear in our next ; proofs shall be sent you in due course.

Dr. Cobbold is thanked.

A Constant Reader, Bath.—Yours to hand on Monday. All letters intended for insertion in the following week should reach the office not later than Saturday.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Would you kindly publish this query to the very large body—the Medical Attendants of the Royal Irish Constabulary :—

Is one shilling a month per man (including, *practically*, the women and children) adequate remuneration for your duties and responsibilities, to say nothing of the extra work now and again imposed on you, and for which the authorities pay not one solitary farthing.

ONE OF THE LOT.

N.B.—The pay of the force having been so much improved of late particularly.

BOOKS AND PAMPHLETS RECEIVED.

The Royal London Ophthalmic Hospital Reports. Vol. VI.
The Journal of Cutaneous Medicine. No. III. London : John Churchill and Sons.
The Epidemiological Society Journal.
Spotted Fever or Cerebro-spinal Meningitis in the State of Massachusetts. Boston : David Clapp and Son.
Cholera : Its Nature and Pathology. By P. C. Little, F.R.C.S.I., &c.
The Pharmaceutical Journal.
Glasgow Medical Journal.
Monthly Homœopathic Review.
Hardwicke's Science Gossip.
The New York Medical Journal.
La Médicine Contemporaine.
Railways in their Medical Aspects. By James Ogden Fletcher, M.D. London : Cornish, 133, Oxford-street.
Report on Pancreatic Emulsion of Fat. By Horace Dobell, M.D. London : John Churchill and Sons.
The Western Journal of Medicine for July and August.
The Maintenance of Health. By Henry Lowndes. London : John Churchill and Sons.

MEDICAL VACANCIES.

Birmingham General Hospital—House-Surgeon and Secretary, vice Mr. Hughes, resigned.
Birmingham Lying-in Hospital—Resident Surgeon.
Cambridgeshire &c. Lunatic Asylum—Surgeon and Apothecary.

MEDICAL APPOINTMENTS.

ENGLISH.

J. B. N. CANE, L.R.C.P.Ed., has been appointed one of the Resident Surgeons at the Birmingham Lying-in Hospital and Dispensary for Diseases of Women and Children, vice Simpson, resigned.

C. R. DRYSDALE, M.D., has been appointed a Physician to the North London Consumption Hospital, Green-hill, Hampstead, vice W. B. Mushet, M.B., resigned.

W. A. HOLLIS, M.A., M.B., M.R.C.P., has been appointed Physician to the Chelsea, Brompton, and Belgrave Dispensary, vice Dr. Sturges, resigned.

M. P. JAMES, M.D., has been appointed a Physician to the North London Consumption Hospital, vice W. A. Smith, M.D., resigned.

R. MACNAB, M.D., has been appointed Surgeon to the Suffolk General Hospital, Bury St. Edmunds, vice S. Newham, M.R.C.S.E., deceased.

J. P. RYAN, L.R.C.S.I., has been appointed House-Surgeon to the Chesterfield and North Derbyshire Hospital and Dispensary, vice Mr. Stamford, resigned.

J. R. PERKINS, L.R.C.S.Ed., late House-Surgeon to the Leeds Dispensary, has been appointed Medical Officer to the Female side of the St. Pancras Union Workhouse.

W. H. PLATT, L.R.C.P.Ed., late House-Surgeon to the Scarborough Dispensary, has been appointed Medical Officer to the Male side of the St. Pancras Workhouse.

IRISH.

Dr. GEORGE St. GEORGE TYNER, L.K.Q.C.P., L.R.C.S., has been appointed Resident Medical Superintendent of the Auxiliary Lunatic Asylum, Clonmel, vice Dr. Joseph Edmundson, appointed to the District Lunatic Asylum, Castlebar, county Mayo.

Dr. JAMES W. YOUNG has been appointed physician to the Mountjoy Female Government Prisons, Dublin.

Dr. DAVID TOPHAM, L.R.C.P., Edin., has been appointed Medical Officer for the Armagh Dispensary district of the Cavan Union, vice Mr. Jacob Sproul.

Mr. CHARLES EVANS, L.R.C.S.I., has been appointed Medical Officer for the Bangor Dispensary District of the Belmullet Union, county Mayo, vice Kisby, resigned.

Dr. STOPFORD W. HALPIN, L.K.Q.C.P.I., has been appointed Medical Officer for the Arklow Dispensary District of the Rathdrum Union, county Wicklow.

Doctor HENRY BURKE M'LOUGHLIN has been appointed Medical Officer of Athleague Dispensary District Roscommon Union, in place of Dr. Richard O'Reilly, appointed Physician to the workhouse of Lismore Union.

R. GRAHAM, L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Kilcar and Carrick Dispensary, District of the Glenties Union, Co. Donegal, vice J. A. Huleatt, M.R.C.S.E.

S. W. HALPIN, L.K.Q.C.P.I., has been appointed Medical Officer, Public Vaccinator and Registrar of Births, &c., for the Arklow Dispensary District of the Rathdrum Union, Co. Wicklow, vice Robt. Augustus L'Estrange, L.K.Q.C.P.I., resigned.

Mr. W. R. HUGHES, House-Governor and Secretary of the Birmingham General Hospital, and Secretary to the late Musical Festival, has been elected Treasurer of the Borough of Birmingham.

SCOTCH.

J. SMITH, M.D., has been appointed an Examiner at the Royal College of Surgeons, Edinburgh, vice Huie, deceased.

Deaths.

CARR.—On the 8th inst., at the Royal Alexander Hotel, Liverpool, seven days after his return to England, to the inexpressible grief of his widow and a large circle of friends, of coast fever, Wm. Tait Carr, Surgeon R.N. Friends will please accept this intimation.

BLAND.—On the 18th inst., at Minister, Sheppy, Eliza Adelaide Herbert, only child of Dr. G. Bland, aged 9 months and 28 days.

HARE.—On the 16th inst., Samuel Hare, F.R.C.S.E., of Gower-street formerly of Leeds, aged 83.

GIBSON.—On the 18th inst., R. C. Gibson, M.R.C.S.E., of Chlemsford, aged 26.

URQUHART.—On the 20th inst. at Bembridge, Isle of Wight, J. Urquhart, Surgeon, R.N.

PRICE.—On the 20th inst., Wm. Price, F.R.C.S., of Leeds, formerly of the Royal Navy, aged 81.

Advertisements.

NOTICE TO ADVERTISERS.

The Medical Press and Circular

OFFERS UNUSUAL ADVANTAGES

FOR the Insertion of announcements from its extensive and largely increasing circulation in each of the three divisions of the United Kingdom and the Colonies. Being also supplied to the Hospital Libraries, &c., it will be found a most valuable medium for Advertisements of Books, Vacancies and Appointments, Sales, and Transfers of Practices, Surgical Instruments, Chemicals, and Trades generally.

The scale of charges is as follows :—

Seven lines and under	£0	3s.	6d.
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The average of words per line is twelve.

When advertisements are given for a series of insertions, a very considerable reduction from the above scale is made.

☞ Advertisements for Insertion in this Journal must be at the OFFICE, on MONDAY, by THREE o'Clock.

RACINE'S GENEVA WATCHES.
(their own Manufacture)
Cannot be surpassed for Neatness and Elegance of Finish.
33, NASSAU-STREET, DUBLIN.

Lectures.

CLINICAL LECTURE ON HEAT ERUPTIONS.

By C. HANDFIELD JONES, M.B.Cantab., F.R.S.,
PHYSICIAN TO ST. MARY'S HOSPITAL.

GENTLEMEN, during my last taking-in-week three cases of well-marked hyperæmial affections of the skin have been admitted, which may furnish us, I think, some instructive matter for consideration. I do not adduce them as instances similar in every respect, but in one very material particular, that of their causation, there appears to me to exist a close affinity between them.

Case 1.—E. W. female, æt. 28, admitted July 16th. Has been ailing a long time with weak digestion; was not worse until an eruption came out yester-morning. This appears at present (3 P.M.), as dull-red, slightly elevated, roundish spots, coalescing often into patches. It occupies the face, neck, chest, abdomen, and, to a less extent, the limbs. On the abdomen the spots are well-defined and discrete. Eyes smart a good deal; tongue pretty clean; pulse 105, very weak; temperature 100°. Much pain in back last week, less the last two days; feels very hot. Has had measles; has marks of vaccination on her arms, but they are not perfect ones. Broth diet. Mist. salin *ter die.*

17th.—Is much better; the eruption has disappeared from the chest and neck, but is still evident on the abdomen, though declining here also. Mist. Quinæ ℥i. *ter die.* In two or three days she was free from any other ailment than debility. When this patient first came under our observation, we had some misgivings lest the disorder should prove to be modified variola, and we isolated her accordingly. The points which made it improbable that the affection was varioloid were these:—The temperature was but little elevated, the appearance of the eruption had not been preceded by marked illness; and the exanthem itself was of an indeterminate character, somewhat like that of measles. Though these features were tolerably decisive, yet it was right to take every possible precaution, and twenty-four hours waiting made all clear.

Case 2.—E. S., female, æt. 18, admitted July 17th, 1867. Has been attending on children affected with chicken-pox. On 13th inst. had a very bad headache; the next day had to go to bed feeling weak and queer. Sore throat came on, which has been very bad, but is now better; the fauces are red and inflamed, and there is mucus hanging from the soft palate. An eruption appeared this morning; it is well out all over the body, except the face and the legs below the knees. In most of the affected parts it appears as red spots of a tolerably bright colour, not distinctly elevated, coalescing to some extent, especially on the elbows, where it constitutes on each side a large, irregular, uniformly red patch. In some parts, as on the chest and abdomen, the appearance is rather that of subcutaneous mottling. Conjunctivæ nearly natural; face flushed; tongue very red and rather sore. No sleep last three nights; temperature 100°; pulse 93, soft; appetite poor. Quin. Disulph. gr. iij. + Acidi Nitrici ℥ ij. + Spt. æth. chlor. ℥ x + Aq. ℥i. *quater die.*

19th.—Eruption almost entirely gone; throat much better. Went out well soon after. The throat affection, and the aspect of the tongue, increased the resemblance of the malady in this case to scarlatina. But the non-elevation of temperature, the moderate frequency of the pulse, the more spotted than uniformly diffused character of the eruption, the absence of any history of infection, and the hint afforded by the previous case that such exanthems might be looked for, weighed with me to regard it rather as a roseola, and this opinion was speedily confirmed by the result.

In themselves these cases are sufficiently trifling, but they are worth your attention, since, as Hebra states, an acquaintance with these forms of erythemata may save you from the common mistake of diagnosing every febrile complaint, attended with a reddening of the skin, as one of the contagious exanthemata. Such hasty conclusions he intimates often lead to disagreeable consequences. But further, we may surely say that the scientific interest of a disorder is by no means necessarily in proportion to its magnitude, and these slight derangements of the cutaneous circulation, occurring under the influence of heat, may aid us to understand better both the phenomena and the causation of other disorders with which they may appear, at first sight, to have no connection. Before I make further comment, let me relate another case of more severity and permanence, but yet occurring under very similar circumstances, and manifesting, I believe, a real affinity to the preceding.

Case 3.—W. G., æt. 23, male, admitted July 17th, 1867. Began to ail on 7th inst., when he first perceived soreness in both axillæ; at night he found that the skin in this situation was red; since then the redness has extended very much, and now affects the whole of both arms up to the wrists as well as the dorsum of the hands, the upper parts of both thighs and the scrotum. In the rest of the thighs and of the legs the skin is covered over with largish red spots, which are more crowded together at the knees and posterior surfaces. The neck and ears are severely affected, and there is serous alkaline discharge taking place at some parts. He had very much pain when the eruption came out; it is much less now. The right fore-arm is very much swollen and is very red, the left is not so much. Heart's sounds normal; pulse 96, full, open; tongue a little coated; thirsty; urine said to be very dark; temp. 101°; health generally good, never suffered in same way before; before his illness he had overheated himself by running, and went out with his master's carriage immediately after, he did not feel chilled, but he ascribes his attack to this, as the disorder came on the next day; he had not drank any cold water after being heated; broth diet; magnesiæ sulph. ℥i. + vini. colch.; ℥ x. + mist. potass. citrat, ℥iss., quater die; liq. plumbi diacet, ℥i. + glycerini ℥ij. + aq. distill. *ad* Oi. pro lotion.

19th.—Is better, eruption fading in colour, but the red spots on the abdomen have extended considerably, and many of them have partially coalesced, temp. 100°; pulse 84, soft, urine of yesterday acid, spec. grav. 1036, rather scanty, thick with lithates, not albuminous.

20th.—The abdomen is nearly covered with a continuous dull red hyperæmia, the upper thighs, groins, and scrotum are in nearly the same state; the flexures of the knees are also quite excoriated, very red and discharging, the arms are much improved, much less swelled. Quinæ disulphat gr. i. + magnes. sulph. ℥i. + acidi. sulph. dil. ℥ x. + spt. æth. chlor. ℥ x. + aq. ℥i. quater die. ung. zinci. ℥i. + plumbi. sub. carb. ℥i. ℥. ft. ungt. in loco lotion.

27th.—Is very much improved, the flexures of the knees, which were painted three days ago with soluti argenti nitr. (gr. x. ad. ℥i.), are much better; at the same date there were numerous red spots on the legs, which were unaltered by pressure, and were true petechiæ; dose of quinine increased on 22nd to gr.iss.

31st.—The flexures of the elbows, and the groins, are in a condition of well-marked eczema, presenting tolerably extensive red patches which feel very hot and irritable, but do not discharge (ecz. sic.) At their margins are seen several discrete red papules, which by their coalescence would add to their extent, and evidently constitute the initial lesion. The axillæ are in the same state, and contain besides, several furunculoid elevations of the corium (there are three of these in the right) which are very tender and inflamed; except in these parts the skin is normal or nearly so; urine in 24 hours, 56 oz., specific gravity 1016, palish, deposits crystals of uric acid; liq. potas. arsenitis ℥. v. + tr. calumb. ℥. x. + aq. ℥ss. *ter die.*

Aug. 7th.—Is now quite well, except some discharge from a furuncle in the right axilla.

It would be more correct to say that eczema was present in this case than that it was one of eczema. In truth, when at its height, the disorder was much more roseola of

erythema than eczema, at least, in most parts; the subcutaneous effusion, however, which was so apparent in the arms, belongs more to the latter than the former. The chief feature was the hyperæmia, which naturally gave rise to exudation either superficial or deep-seated; this was the case during the rise and culmination of the disorder, but in its later stage, when it was much more limited, the characters of eczema completely predominated. It seems little likely, however, that the disease was not really the same throughout, that is in its essence, although appearing in a different guise at different times. At the present day many are convinced that no satisfactory arrangement of cutaneous diseases can be formed by reference to their anatomical peculiarities, and I quite concur in the opinion, although the terms in use serve well enough to distinguish the principal groups—squamous, papular, vesicular, bullous, maculated, are still epithets which are convenient and useful. But what we really want is a true pathology of these several forms. We ought to know as a first and elementary matter, whether they are dependant, all or any of them, on the presence of some *materies morbi* in the blood; whether this materies is different in the several anatomically different eruptions; how it is generated in the system, and whether it is to be got rid of by elimination or by inducing a better nutrition. Until we have accomplished something of this kind, we can, I believe, do nothing in the way of framing a real scientific arrangement of these disorders. Another question must also be considered—viz., whether different forms of eruption may not be essentially similar, as being products of the same cause, while other states, apparently quite similar, may be proved to be really very different on the ground of their etiology and therapy. Thus, a case of eczema may have much more affinity to one of lichen than it has to another case of eczema, because the two former may depend on the action of heat, and the latter on the gouty diathesis. In the cases I have brought before you I believe the summer temperature was the most efficient cause of the eruption, and it may be worth our while to consider how it produces this effect. Direct exposure to solar heat will inflame and blister the skin, as tourists often experience, but this is a mere local action confined to unprotected parts. True eruptions, diffused more or less widely over the surface, must be induced in a different way. The explanation of their occurrence is found, I believe, in the general statement (which no one can doubt), that heat, if at all excessive, is enfeebling to nervous and muscular tissue, both of the voluntary and involuntary departments. Paresis thus induced of the vaso-motor nerves supplying the small cutaneous vessels, allows distension of the capillaries to take place, and according as those of the papillæ, or of the subjacent plexuses are most affected, we may have at the outset a papular eruption or an erythema. Thus far it is supposed that the texture of the capillaries is unaltered, but if the morbid change goes farther, serous effusion, or even actual escape of blood into the corium may ensue, both of which events took place in case 3. But dilatation, and weakening of the texture of vessels, are not the sole results of the paresis. The increased supply of blood acts as an excitant or irritant to the cutaneous tissue, alters its vital condition, and converts the active hyperæmia into actual inflammation. We have complete proof of this occurrence when suppuration takes place within and without the eyeballs, in consequence of long continued hyperæmia depending on arterial relaxation. I have known this happen in a case of Graves' disease, and also in a case of epilepsy. Confirmative evidence is also afforded by Vanzetti's observations relative to the cessation of inflammation in a limb after prolonged compression of the main artery. It is of great practical importance to recognize this state of tissue excitement, and the question of its existence should always be considered in planning the treatment. Its decline renders the administration of tonics and astringents admissible, which previously would have acted as irritants, and is generally announced by the duller red tint of the hyperæmic parts, which, however, as in our last case, may, at the same time, increase in extent.

The morbid effect of heat seems to be materially promoted by the presence of moisture. I have mentioned to you the case of a weakly female, in whom the application of a poultice produced a distinct eczematoid eruption in the part so treated. In his clinical lecture on sudoral exanthems, Trousseau relates the case of a poor lady, who, after her confinement, was kept by an old prejudiced nurse soaking in her lochia, with unchanged linen, loaded with wadding and bed-clothes to bring on the flow of milk. Scarlatiniform eruption appeared on the sixth day of her illness, on the tenth the whole body was covered by a frightfully severe and confluent eczema. The face flushed, delirium came on, and death followed. Trousseau ascribes the eruption to the irritating effect of the copious perspiration. To my mind the moist heat seems quite a sufficient cause, and I feel doubtful as to the possibility of so much irritation being produced by sweat. Rheumatic fever patients often perspire copiously, and for a long time without any cutaneous eruption being produced. The prolonged soaking in hot water which patients undergo at Leukerbad, very commonly has the effect of bringing out on the surface an eruption termed "la poussée." This, according to the account given of it by Constantine James, begins as an erythema, but often develops into a pretty smart eczema. It is regarded as a desirable event, but as it is not essential to a cure, this may perhaps be doubted. At any rate it illustrates my statement, that cutaneous eruptions may be produced by heat without any irritation from the secretion of the perspiratory glands. Recently I had a gentleman under my care, who had been invalided and sent home from India on account of eczema of the face. When I saw him the condition was that of chronic erythema; his skin flushed and got very red if he faced the fire, or drank even light wine. In cold weather he was better.

The foregoing considerations will probably incline you to join with me in the belief that excessive heat is one of the causes of eczema, as well as of other cutaneous hyperæmiæ. There are plenty of other causes which act either alone, or in conjunction with heat, but with these I am not dealing now. My object at present is to set before you the strong probability that heat acting in the way I have described, may produce eruptions of greater or lesser magnitude, often very much resembling those of the true exanthemata; and, besides, capable of perplexing you very much if you are not aware of their real nature.

Now, if the pathology of these disorders be such as I have described, there can be no doubt as to their treatment. The weak vessels and nerves must be judiciously toned, and the hyperæmia and its effects will cease. You need have no fear whatever of repelling the eruption if you only proceed with common prudence. Mr. Naylor tells us that sailors affected with prickly heat continually bathe in the sea without any ill effects, and his statements are in conformity with those of others. I have no doubt that the poor lady, whose case I cited just now, would have been greatly benefited by a good washing with cold water, at least before her eczema was fully developed. Indeed, when actual inflammation has occurred and become severe, as was the case in my patient, I can believe that any *abrupt* repression of the process might prove injurious. But this is not on account of any *materies morbi* being driven away from the part, but because the inflamed tissue is not tolerant of any sudden change in its condition. Sir Thomas Watson relates how a woman who had scalded her arm, immediately after immersed it in cold water, but was obliged to desist because severe rigors were brought on thereby. My reason for not administering quinine from the first to my patient W. G., was based in good measure on the same kind of apprehension. The inflammation had made the tissues so irritable that there was reason to fear that the tonic might not have been borne well. In three days time, with the aid of salines and colchicum, this state had lessened, and then the remedy guarded with a little neutral salt had a speedily beneficial effect. The occurrence of furuncles towards the close of an attack of eczema, as in

this instance, is by no means unfrequent. It seems as if the disordered nutrition of the skin manifested itself in another form before it finally ceased.

There is another point which I wish you to remark—viz., the evident affinity between these summer skin eruptions, and the diarrhœas of hot weather. Both are essentially hyperæmiæ of vaso-motor nerve origin, one of the external, the other of the internal tegument. The much greater frequency of the latter depends probably on the greater supply of blood which the intestine receives, on the greater degree in which its vessels are under the sway of the sympathetic, and on the much greater delicacy of the epithelial investment of the membrane. The great prevalence of diarrhœa in tropical climates shows clearly that the influence of external temperature is felt throughout the body, as otherwise the presumption would be that, the blood being determined so freely to the skin and to its glands, there would be no tendency to hyperæmia of the internal mucous surface and its glands. Not only, however, is this very markedly the case, but another mucous tract (the uterine) is affected in a like way, and menorrhagia, as Sir Ranald Martin tells us, is a common occurrence. It seems to me very doubtful whether, what has been termed cutaneo-hepatic sympathy, is anything more than a part of that general paresis of arteries and their regulating nerves, which ensues as a result of a high temperature. Heat acting on the cutaneous nerves relaxes the vaso-motor nerves of the superficial arteries, and of those of the internal organs, because in both instances it operates through the nervous centres.

ON KNOCK-KNEE.

A CLINICAL LECTURE DELIVERED AT THE NATIONAL ORTHOPÆDIC HOSPITAL.

By Dr. HENRY DICK.

Gentlemen,—I select this case for a lecture because there are some interesting points in it, which are important not only in the treatment of knock-knee, but also in the treatment of other deformities—I mean the cutting of tendons, and respecting which presently I shall explain myself more fully.

Several deformities may affect the knee-joint. They may affect one or both legs. Those most frequently met with are the contracted knee and knock-knee. You have seen one case of contracted knee in our wards under treatment, and at another time I shall give you more full information about it. The third form of deformity of the knee-joint is the outward curvature of the leg, and this deformity, like knock-knee, is generally of rickety origin. The most unfrequent deformity of the knee is the contraction forwards. I know only two cases on record. One of Dr. T. E. Grant, of Canada, which was of a traumatic origin; the other related by my friend, Mr. W. Adams, of which the original is in the Museum of St. Thomas's Hospital. The pathological anatomy is identical in both cases, but the history is wanting in that of the museum.

In the case before us now, I show you here the casts of the deformity of both legs previous to the cure. You see the deformity was more severe in the right knee than in the left.

The history of the case is the following:—

H. P., 15 years of age, a peasant boy, never before ill, came to the hospital December 15, 1865, recommended by our esteemed consulting Physician, Dr. H. G. de Mussy. There were no signs that he had had rickets in his life. He stated that twelve months before entering the hospital his knees began to be painful after walking or working, and they got worse up to the time of his coming into the hospital. He was treated with two long splints, well padded, for about three months. One deformed leg got better, but in the right leg, as soon as the splint was taken off, the deformity re-appeared. The tendon of the right biceps femoris and also the fascia were divided on the 20th March, the splints re-applied, and in three weeks the deformity had completely disappeared. He will leave the hospital completely cured, but of course wearing irons for some time to prevent relapse.

Now, gentlemen, coming to the denomination of this deformity, I do not think the term "genu valgum" a good one, and really I consider the English denomination of knock-knee is a better definition. But in all the books on deformities it is called so, and we must keep the name "genu valgum," as we have kept the name of pes varus for club-foot. In science we have to do as in many other things, take them as we find them, and do the best with them. If we were to change the names of diseases to make them logical, I think much confusion would ensue, and I do hope in future when a new affection or an unknown disease may be described, a logical name will be given, so that the name will at once be a correct signification.

The father of orthopædic surgery in this country, Dr. Little, tells us in his valuable book on "Deformities," that rickets are the principal cause of knock-knee, but states that debility also may produce the deformity. I think Dr. Little is quite correct, and in the case before us believe debility was the cause. But I remember a case in my own practice, where knock-knee had a traumatic origin in a severe burn on the outside of the knee. I had in that case not only to cut the biceps, but also to perform a plastic operation to remove the cicatrices. In the case in point, the deformity was produced not only by the shortened tendon, but also by the *skin* and *fascia*.

In dissecting a "genu valgum" in the early stage of the deformity, we generally find the surfaces of the tibia and the femur very little changed. Real changes have only taken place in the soft parts. The ligaments, fascia, and muscles are shorter on the contracted side, and lengthened on the opposite. But in old cases the articular surfaces of the tibia and femur become changed by a partial absorption of the part where the pressure is most severe in the knee-joint. The rotatory movement of the knee in walking made me at one time think it was due to the deficiency of one part of the articular surfaces, but my researches on the rotation of the deformed spine revealed to me the law under which that rotatory movement takes place. The reason of this rotatory movement is owing to the unyielding and unelastic state of the biceps, fascia, and ligaments, forming a kind of string of a bow, and not being capable of being extended, the knee rotates with inward movement in walking.

I think in no deformity can we give a better prognosis than in knock-knee. I do not remember one case which has not been cured when proper treatment has been applied. You may see a number of people with knock-knee, walking about not cured, but you may be sure had they been properly treated, they would have been cured. Knock-knee is generally not congenital. I cannot find any congenital case recorded, answering completely to knock-knee, as we see it when it occurs from rickets or debility. Mr. Depaul describes a case of rickets having taken place in the intra-uterine period, and so do some German writers, but I doubt, if knock-knee can take place in fœtal life, and my reason for it is because I believe knock-knee is the result not only of the rickety and debilitated state of the knee, but also of certan mechanical laws, which are not incidental to fœtal life. When rickets is the cause of knock-knee we often find a deposition to valgus in the foot, which we do not always encounter when debility is the cause of the deformity; as an illustration is the case mentioned above; in it there was no tendency to valgus. Previously in this lecture I gave you a description of the deformity, and I told you already, as you see by the casts, that the right knee was more deformed than the left. A well-padded splint was applied with the patient of course in the horizontal position.

You have no doubt heard or read something of the *cutting* and *non-cutting* of tendons in the treatment of deformities. Make it always a principle in practice to try a thing (of course if there is no danger in doing so); so I tried the non-cutting method for three months. There

was a little improvement in both knees, but the deformity in the right knee was still persisting. I dare say in a very considerable length of time I should have cured the patient. As the non-cutting method did not seem very beneficial, I decided to cut the biceps and fascia in the right leg. You see the result. Only three weeks after the operation was performed the deformity in the right leg had completely disappeared. You see the leg upon which the operation has been performed presents a much more normal shape than the other, upon which no operation was performed. I was always of opinion that the subcutaneous cutting of tendons is a very harmless operation ; of course if practised where not indicated, and in the wrong place, it will do harm. But the same may be said of all remedies and operative proceedings. Wherever there is an idiopathic shortening of soft parts, and no cause any longer existing in the nervous centres, I think subcutaneous section is of very great advantage. In fact all our improvements in the treatment of deformities must be ascribed to it. Our forefathers tried to cure deformities by buckling, strapping, and straightening, but very little improvement was made in the right direction. Before tenatomy became popular there were numbers of orthopædic institutions to be found everywhere, but the result of their treatment was not satisfactory until subcutaneous section was tried.

In conclusion, I must impress on your minds that it is not by cutting tendons and fascias you have overcome the deformity ; the truth is, in cutting a part of the tissues producing deformity, you are more able to attack the other elements causing the affection with success. Tendons, fasciæ, and ligaments combined, are too strong to be overcome, but weaken some of the elements of deformity by cutting, then you are able to overcome the other difficulties. In fact it is "battre l'ennemi en detail."

Original Communications.

ON THE TREATMENT OF PHTHISIS BY CHANGE OF CLIMATE.

By THOMAS MORE MADDEN, M.R.I.A.,

LICENTIATE OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND, MEMBER OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, AUTHOR OF AN ESSAY "ON INSANITY AND THE CRIMINAL RESPONSIBILITY OF THE INSANE," "ON CHANGE OF CLIMATE, A GUIDE FOR TRAVELLERS IN PURSUIT OF HEALTH," "THE SPAS OF GERMANY, FRANCE, AND ITALY," &C.

(Continued from page 289.)

Rome is the most important sedative winter climate in Italy. The mean annual temperature of Rome is 60°, the mean temperature of winter is 48°, or 11° lower than that of Madeira, 2° higher than Pisa, and 4° higher than Queenstown. The mean temperature of spring in Rome is 57°, or 5° lower than Madeira, exactly the same as at Pisa, and 7° warmer than Queenstown. The atmosphere in Rome is peculiarly soothing, and, indeed, rather relaxing in its effects on the pulmonary mucous membrane. Exemption from harsh and violent winds, is another advantage of the climate of Rome in winter ; and I quite agree with Sir James Clarke in considering Rome the best sedative climate in Europe for consumptive patients.

Pisa ranks next to Rome as a sedative winter climate. The atmosphere is moist and warm, and is not subject to frequent variations of temperature. The mean winter temperature of Pisa is 44°, and that of spring is 57°. In winter southerly winds prevail, and as these must all cross over the wide expanse of the Maremma, the humidity of the climate is thus accounted for. Pisa is suited as a winter residence for the same class of invalids as Rome. It has not, however, the same social and general advantages as a residence for the invalid in winter as the Eternal City.

THE SO-CALLED "INTERMEDIATE CLIMATES."

By the term "intermediate climates" those winter resorts which to some extent partake of the characters of the tonic and sedative climates, but which differ from both, are referred to. The principal winter climates of this class are Algiers, Lisbon, and Pau.

The mean temperature of Algiers is 65°, that of winter 55° and of spring 66°. The annual rainfall amounts to thirty-two inches, and the number of wet days varies from fifty-five to sixty in the year ; of these seven-eighths occur between November and May, which is therefore called the "rainy season." The prevailing wind is the west. Easterly winds, are next in frequency and are cold and humid. There are, however, few cold, foggy, or windy days during the winter in Algiers, and the temperature of this season in the day-time is seldom under 58°. But there is a striking difference between the temperature of the day and of the night, and so great and rapid is the fall of temperature immediately after sunset, that it would be most unsafe for any invalid to expose himself to the night air, even for a short time, in Algiers. This climate produces in foreigners a remarkable tendency to inflammatory and intermittent febrile affections, against which it requires constant precaution to be observed. I myself had a proof of this in my own person, having contracted intermittent fever from a short journey into the interior of the colony. Scrofula is prevalent amongst the native population, and it is still a disputed question whether phthisis is so or not. The death-rate amongst the permanent French residents in Algeria is very high, and the mortality amongst the French children brought into the colony between the ages of six months and two years was fearful, amounting to 440 per thousand, or nearly one-half, from the time of the conquest. In winter the climate of Algiers is slightly humid, and is best adapted for cases of chronic bronchitis occurring in elderly persons. It should never be prescribed to young persons suffering from predisposition to consumption, nor to persons in the third stage of the disease. If employed at all in the treatment of consumption, Algiers should be resorted to only, and with great caution, by patients in the first stage of phthisis.

Lisbon is now less resorted to than it was formerly by consumptive invalids. The climate of Lisbon is humid and warm, but changeable. The prevailing wind in winter is the south-west, which is often accompanied by rain. The mean annual temperature is 61°, winter 54°, spring 59°, summer 68°, and autumn 59°. In spring, cold winds, accompanied by a very hot sun, prevail, and are dangerous to pulmonary sufferers. Speaking from a very long personal experience of Lisbon, I would say that this is not a suitable climate for cases of consumption generally, although it is, I think, a good sanatorium for certain other morbid conditions that require change of climate.

Pau has, I believe, acquired an unmerited reputation as a winter resort for consumptive patients. I have visited Pau more than once, and at different seasons. The atmosphere of this town is generally supposed to be warm and genial in spring, but to me it has always appeared cold and damp. The mean temperature of the winter is only 3° higher in Pau than in Dublin ; and the average annual rainfall in Pau is fifteen inches more than in Dublin, although the number of wet-days in the year is certainly much less in Pau than it is here. Moreover, the temperature of Pau is exposed to considerable fluctuations ; thus, on the 14th February, I observed a difference of no less than 20° within a period of three hours.

ALPINE CLIMATES IN THE TREATMENT OF CONSUMPTION.

Mountain climates have recently attracted attention as fit health-resorts for phthisical invalids. It is asserted that pulmonary consumption, which is a very prevalent disease in Lima and the coast of Peru, is unknown in the highest inhabited valleys of the Peruvian Andes, and that phthisis may be cured by this mountain climate ; a fact of which the Peruvian Government have availed themselves by establishing a military hospital in the valley of Jauja, upwards of 10,000 feet above the sea level, to which phthisical soldiers are sent, and, as it is stated, with the most striking benefit. Somewhat similar assertions are also made with

regard to the effects on phthisis of the climates of some of the Swiss Alpine valleys; and French writers are not behind hand in claiming a remarkable exemption from consumption for the inhabitants of the High-Pyrenees. With regard to the Peruvian Andes, the benefit said to follow the removal of a consumptive patient from a very warm and relaxing climate, within the tropics, to a pure, dry, and bracing mountain atmosphere, of a moderate temperature, is easily comprehended. But the valleys of the Alps and Pyrenees can bear no comparison in these respects to the valleys of the Peruvian Andes. I should myself hesitate to send a patient, actually phthisical, from this country, to either the Swiss or French mountain districts. For, a pressure so considerable as that of the atmosphere in a lowland country, at sea level, cannot be suddenly diminished, as it must be in ascending to an elevated mountain district, where, too, the temperature falls together with pressure of the air as we ascend, without danger of occasioning pulmonary congestion or hæmorrhage from the lungs of a consumptive person. A short residence in Switzerland or the Pyrenees, in summer or autumn, may, however, prove bracing and serviceable to some patients predisposed to consumption.

THE WINTER HEALTH RESORTS OF THE SOUTH OF IRELAND AND ENGLAND.

The superiority of foreign winter climates in the treatment of consumption over any health resort in the south of England or Ireland is to a great extent independent of all climatic considerations. The change of living, of scene, and of place, and the absence from the cares of business, which are comprehended in a journey to a foreign winter resort are probably as useful to the general health of the consumptive patient, as the warm, soothing, atmosphere is serviceable to the pulmonary complaint from which he suffers. Another great advantage of southern climates over the English and Irish winter resorts is that, in those foreign sanatoriums there are few days on which the invalid cannot at some time or other enjoy open air exercise, whereas, in any part of Ireland or England there are many days in winter so cold or so wet that the invalid cannot go out of doors without great risk.

But, still, there are many cases of consumption in which the circumstances of the patient will not admit of the expense, nor his health bear the fatigue of a journey to a foreign sanatorium, but in which, change in winter to one of the warm sheltered localities which abound on the southern coasts of Ireland and England may be very useful.

Some of the best of our home winter climates are those of the south of Ireland. The climate of Ireland appears to have undergone a remarkable change even within the recollection of persons yet living, and if we may credit such testimony, the weather has become less warm in summer, and less cold in winter, while in place of the former long and hot summers and cold winters, we have a longer continuance of spring and autumn weather.[1] In the seventh century we read that the vine flourished in Ireland, thus the Venerable Bede expressly asserts: "Hibernia lactis et mellis insula, nec vinearum expers."[2] In the sixteenth century Buchanan, the Scottish Historian, states that the climate of Ireland was milder than that of France or of Britain, "Hibernicum autem solum amœnitate et cœlum temperamenti æquabilitate longe Britanicum superat."[3] Dr. Patterson in his learned essay on "The Climate of Ireland," published in 1804, quotes numerous authorities to prove that Ireland has gradually become more cold and humid than it was formerly.[4] Still, some portions of the country appear to have preserved their ancient climate to a certain extent. This is more especially the case in districts on the south-western coast of Ireland which are washed by the waters of the gulf stream, and exposed to the influence of warm southerly or westerly breezes. The mildness of the climate of the coast of Kerry, for instance, is shown by the luxuriant growth of the arbutus, myrtle, and other plants that thrive only in warm climates. Moreover, in the Second Decennial Report of the Irish Census Commissioners we find the following testimony to the comparative exemption from phthisis of the inhabitants of the south-west coast of Ireland. They say: "So far as our investigations extend, they lead to the belief that the coast line of country is less productive of diseases of the respiratory organs than the inland districts, and that the western coast, especially towards the south-west, although remarkable for its moisture, has on the whole a milder climate, and exhibits, so far as our observations go, less mortality from diseases of the chest than other parts of Ireland."[1]

QUEENSTOWN is the most equable winter climate in the British Islands, and according to Dr. Scott, whose observations, first published in the *Dublin Quarterly Journal of Medical Science*, afford a most comprehensive account of the subject, "there are fewer rainy days at Queenstown than in any other British climate." The annual rainfall at Queenstown is 32 inches, and the annual number of rainy days is 121, while in the neighbouring city of Cork it is 181, and in Dublin it is 220. The mean annual temperature of Queenstown is 52°, the mean temperature of winter is 44°, and that of spring 50°, being in the former season two degrees warmer than Undercliffe, two degrees warmer than Pau, eleven degrees lower than Malaga, and fourteen degrees lower than Cairo. In spring, Queenstown is two degrees warmer than Undercliffe, four degrees lower than Pau, eighteen degrees lower than Malaga, and thirteen degrees lower than Cairo. One of the great advantages of the climate of Queenstown is that cold easterly winds are less prevalent there than any others, and warm southerly winds are by far the most frequent. In fine, when a moderately warm, slightly humid, sedative maratime winter climate is indicated in the treatment of consumption, I know of no part of the British Islands more proper for the purpose than Queenstown.

MALLOW, on the Blackwater, is well sheltered by wooded hills from cold winds, and enjoys a climate peculiarly warm, soft, and genial, in winter.

DINGLE is one of the best, warm, humid, and sedative climates in Ireland for consumptive invalids; and the town is well sheltered by the neighbouring mountains from the north and east winds. The mean temperature of the year at Dingle, according to the observations of Dr. Blennerhasset of Tralee, is about 6° higher than either Torquay or Undercliffe, and 4½° higher than Queenstown. While the mean temperature of winter and spring is 3½° higher than that of Montpellier. The superiority of the climate of this district for cases of consumption may be inferred from the fact—in the neighbouring town of Tralee out of the vast number of dispensary patients attended by Dr. Blennerhasset only 85, or one in every 2000, were cases of consumption.

On the south-west coast of England we find a number of localities which are more or less celebrated as health resorts for consumptive invalids. Nearly all these places belong to the class of sedative winter climates. One of the best of these winter resorts on the coast of Devonshire is Torquay, and I have seen very striking benefits derived by phthisical patients from a residence in this sanatorium. Dawlish, near Exeter, is another well sheltered, mild, sedative climate in winter, but in spring is exposed to easterly winds. Sidmouth is better situated in this respect, being sheltered from easterly winds in spring, and even in winter is rather warmer and more equable in temperature than Dawlish. Besides these there are many other places on the southern coast, such as Worthing and Hastings, which are said to be warm and suitable winter resorts. But not having had sufficient personal experience of the climates of this coast, I cannot enter fully on this question. The sanatoria of the Isle of Wight are more of a tonic character than those of the opposite coast. The Undercliffe district is probably

1 See a Memoir on the Climate of Ireland, by Rev. Mr. Hamilton, in Transactions of the Royal Irish Academy for 1794.
2 Bede, Hist. Gent. Anglican in Vita, St. Columbi, chap. i.
3 Buchanan, Historia Rerum Scot., Lib. i.
4 Observations on the Climate of Ireland. By Wm. Paterson, M.D. Pp. 154-160. Dublin. 1804.

1 Second Irish Census Report, vol. v., p. 449.

one of the best localities in Great Britain for pulmonary patients requiring a climate not only exempt from severe cold, but, moreover, dry and bracing in its effects on health.

MINERAL WATERS IN THE TREATMENT OF PHTHISIS.

As mineral waters are, by some writers, said to be most efficacious in the treatment of consumption, a few observations on this subject may not be misplaced in this article. Amongst the spas recommended as specifics in phthisis are the chalybeate springs of Lisdoonvarna, and Spa; the alkaline, saline, waters of Ems; the cold, sulphurous springs of Wielbach and Marlioz; the thermal, sulphurous sources of Cauterets, Eaux Bonnes, and Amelie les Bains; and the saline wells of Soden, Kissingen, and Canstadt. It seems difficult to imagine how mineral waters so different can be applicable to the treatment of any disease. I have visited nearly every spa in Europe said to be useful in the treatment of consumption, but I have never seen any satisfactory evidence that a consumptive patient was cured by any of these waters. Some of the hot sulphurous springs recommended to phthisical sufferers are very unfit for such persons, and are more calculated to excite the circulation, and bring on hæmoptysis, than to benefit the patient. In proof of this I may be permitted to quote one case from my recent work on "The Spas":—"A gentleman of phthisical diathesis who had repeatedly spat blood, but who supposed himself to be perfectly recovered from any pulmonary disease, was attacked by very obstinate urticaria. For some time he was under medical treatment. Finding himself, however, still uncured, he at last 'threw physic to the dogs,' and, without consulting his physician, he repaired to the hot sulphurous baths of Aix la Chapelle, where, as he arrived, he took his first and last bath. That same night profuse hæmoptysis set in, which recurred at intervals for some days, and did not cease till he was so weakened that it was with great difficulty that he was brought back alive to this country."* I have no doubt, however, that a visit to a mild, chalybeate, mineral spring, such as Lisdoonvarna, Ems, or Spa, in summer, followed by change of climate in winter, may be very useful in improving the general health of persons predisposed to consumption, and thus aid in warding off the disease.

One of the principal uses of change of climate in the treatment of phthisis is that when judiciously made, the change of air brings the patient more within the range of other remedies, and assists their operation. Patients, however, when they resort to change of climate, too often abandon all other remedies. It is, therefore, essential to impress well on invalids going abroad in pursuit of health, that in whatever climate they may go to, they will still require the ordinary medicinal treatment, and more especially cod-liver oil. Of all the remedies employed in the treatment of phthisis, change of climate and cod-liver oil are the most efficacious, and cod-liver oil may be taken with advantage, if properly administered, by almost every phthisical patient, and in every stage of phthisis. Active exercise in the open air is essential for consumptive patients, and that place should be selected as a health resort for such persons, which, *cæteris paribus*, affords most opportunities for open-air exercise. At the last meeting of the British Medical Association, Dr. Bennet, of Mentone, asserted that active open air exercise was most prejudicial to the consumptive, and I then endeavoured in reply to show the utter fallacy of this opinion. The greatest English physician of the past, Thomas Sydenham, went so far as to assert that "Bark is no surer a cure for ague than riding is for phthisis." And the late Dr. Graves, one of the most eminent physicians of any age or country, held opinions on this subject in accordance with those of Sydenham, and, therefore, very different from those of Dr. Bennet (see Grave's Clinical Medicine, pp. 291-294, Dublin, 1843). Indeed, it stands to reason that the more active exercise a consumptive patient can take, so much the better chance will there be of the arrest or cure of the disease. This much is certain, that consumption commits its deadliest ravages amongst those who are precluded, by a sedentary life, or by occupations which confine them within doors for a considerable part of their time, from taking sufficient active exercise in the open air.

Consumptive patients who require change of climate require to observe abroad the same treatment they would have followed had they been treated at home. Cod-liver oil should be tried in every case of consumption. Counter-irritation to the chest, with iodine, blisters, and above all, turpentine is generally as essential abroad as at home. The colliquative perspirations demand the exhibition of quinine with sulphuric acid, and in some cases I have found small doses of morphia, and other opiates successful in warm climates in checking the night sweats of phthisis when acids had failed. It is of importance for the physician when prescribing for phthisical invalids going to a foreign winter resort, to bear in mind that in many of these places our prescriptions are often unintelligible to the native apothecaries, even when they profess to understand English prescriptions, a fact of which I have seen some striking illustrations.

It would be well, therefore, to recommend patients going abroad in pursuit of health to carry with them a small quantity of whatever medicines the physician deems advisable. If these precautions be observed, and if change of climate in pursuit of health, guided by the principles derived from practical experience, which I have sought to point out in this essay, be resorted to in time, we may thus, I believe, oftentimes be successful in attempting the curative treatment of consumption.

* Dr. T. More Madden, "The Spas of Belgium, Germany, Switzerland, France, and Italy." Page 28. London. 1867.

CHOLERA THEORIES.

No. VI.

In the course of several articles, in which we have reviewed some of the more prominent theories that have been put forth on cholera, we have had occasion, more than once, to allude to the doctrine which we are now about to examine, and which, from the able advocacy of its author, as well as the large number of phenomena to which it offers an explanation, deserves the fullest attention. The theory in question is that of Dr. John Chapman, whose views of the origin and treatment of various forms of nervous disease will be, to a certain extent, familiar to the readers of this journal. In his investigations into these subjects he has become convinced that his doctrines completely elucidate the nature of cholera and diarrhœa, and point out to us a means of successful treatment. It is but just that we start by reminding the reader that these doctrines appear to be the natural deductions from the experiments of Claude Bernard, Brown-Séquard, and other renowned physiologists. In fact, where those authorities stop Dr. Chapman begins, and, therefore, fully to appreciate his views, it is necessary to be acquainted with the most recent views in physiology, from which they are, as it were, a deduction. We are bound to say that we see no flaw in Dr. Chapman's logic, and we believe that those who accept his premises will find no escape from his conclusions. His volume on cholera is a carefully reasoned and complete work, which we commend to the serious consideration of the profession. It is one elaborate and consistent argument, the grasping of which will afford an intellectual treat, as well as a useful mental exercise, to those who are too much engrossed in the cares of practice; while, without lacking the earnestness of an enthusiastic advocate, the book is destitute of the least approach to offensive dogmatism. We propose, however, as the best service we can render our readers, to submit the book, as a whole, to a detailed and critical examination.

In order to enable his readers to understand his peculiar theory of diarrhœa and cholera, Dr. Chapman has occupied eighteen pages with an introduction, consisting of two parts, named respectively, "neuro-physiology," and "neuro-therapeutics." In this introduction he has traced the outlines of those novel views of the nature and treatment of disease

to the advocacy and practical illustration of which he is mainly devoting himself. In three distinct series of papers communicated to this journal on epilepsy, paralysis, and cerebro-spinal fever respectively, Dr. Chapman has already exemplified the applicability of his doctrines in the elucidation of those forms of disease, and of his therapeutical method in their treatment; therefore it will be only needful here to present a summary of his views. This we give chiefly in his own words—

"Between the two extremes of defect and excess, in the local or general supply of blood to the organic tissues, the great majority of diseases to which the human body is liable may be ranged; for they may be shown to consist in some excessive or defective activity of the processes of textural nutrition, and of the blood currents ministering to those processes" (p. 1). "The more, however, these phenomena are studied, the more convinced pathologists become that they are immediately dependent on morbid states of the nervous system, which is primarily affected, its departure from health being first denoted by a disorder of its own circulation, which subsequently originates those derangements of circulation of various kinds in various parts of the body, variously denominated as special diseases, according to their localities and peculiarities" (p. 2).

In support of these two cardinal propositions, Dr. Chapman proceeds to explain the relation of the nervous to the vascular system, as well as to the special glands and secreting surfaces throughout the body. After recounting the discoveries of Professor Claude Bernard, and Dr. Brown-Séquard, respecting the functions of the sympathetic nerve, he says :—

"It has long been thought that one of the chief functions of this nerve is to preside over and regulate the activity of the glandular system. But increasing physiological knowledge shows more and more clearly that it does so only in the same way as it presides over all other organs, viz.—by regulating their blood-supply. It may, I believe, be confidently stated that the only positive knowledge yet obtained respecting the functions of the sympathetic, proves that its action consists in stimulating the muscular coats of the blood-vessels, and thus in modifying the volume of the blood-currents. It is the motor nerve of the blood-vessels throughout the body" (p. 3). . . . . "Considering the physiological relations thus said to obtain between the sympathetic ganglia and the blood-vessels throughout the body, it is evident that if it were possible to lessen or increase the circulation of the blood in those ganglia, it would be possible, secondarily, through their agency, to increase or lessen the circulation in every part of the body.

"In 1863 I published the discovery which I had made, that the circulation in those ganglia could be lessened by the application of ice, and could be increased by the application of heat along the region of the spine. My experience since that time has abundantly proved the reality of the discovery; and I can state that the circulation in the head and in the thoracic, the abdominal and pelvic viscera, can be increased or lessened by modifying the temperature of the appropriate segments of the back. I also stated in 1863, that ice can be safely applied for long periods of time along the spine; that, therefore, the circulation of the blood in the spinal cord could be increased or lessened, and that this discovery confers the power of modifying the nervous currents to the voluntary muscles, and thus of exercising a remedial influence over their morbid conditions, and notably over those of a spasmodic or convulsive character.

"Second only in importance to the power here described, of increasing or decreasing the general circulation through the agency of the nervous centres, is the power I have also discovered, by which the glandular system—especially of the skin and of the mucous membrane—may be influenced in like manner, but with this very remarkable difference, viz.—that whereas the peripheral circulation is increased by cold and decreased by heat along the spine, the activity of the glandular system is decreased by cold and increased by heat along the spine"(pp. 3—4).

This passage is immediately followed by an interesting account of the way in which the author convinced himself that the whole of the mucous and sweat glands perform their functions at the bidding of nervous energy transmitted to them, not from the sympathetic, but from the spinal cord. Continuing to reflect on his physiologically interesting and therapeutieal important observations, and considering the significance of the discoveries of Bernard, Czermak, and Pflüger, respecting the innervation of the salivary glands, he arrived at the conclusion that all glands are rendered active by nervous influence transmitted to them solely from the cerebro-spinal system. He says :—"My own discoveries with respect to the action of cold and heat along the spine on the secretion of sweat and mucus, harmonize with Bernard's respecting the innervation of the salivary and parotid glands, while my inference that special cerebro-spinal nerves preside over the functions of the mucous and sweat glands, receives the highest authoritative and scientific sanction, inasmuch as Bernard's discoveries respecting the salivary glands, led him to a conclusion similar to mine concerning the general functional relation of the nervous to the glandular system" (p. 8). According to this doctrine, every gland is subject to nervous influence from two sources—one the cerebro-spinal, the other the sympathetic nervous system. The influence from the former is direct, is conveyed by nerve-filaments into the very gland-cells themselves, and causes their activity; that from the latter is indirect, is distributed over the muscular coat of the artery from which the gland derives its blood, and regulates the volume of the arterial current. As the gland is made to function by the cerebro-spinal nerve, and as its secretion may be lessened or even arrested by the vigorous action of the sympathetic which, inducing energetic contractions of the gland artery, may diminish or shut off the blood-supply, Dr. Chapman calls the former the *positive motor*, and the latter the *negative motor* nerve. The innervation of glands is, in his opinion, "a subject of such paramount importance in its bearing," on the pathology of diarrhœa and cholera, that he has given "a summary of the present state of knowledge, and of the desiderata of this branch of neuro-physiology." At its conclusion he observes :—

"The foregoing summary will be admitted, I presume, to present convincing evidence that the disposition of the nervous system is such as to enable every gland in the body, whether cutaneous, mucous, or special, to derive a positive motor nerve from some part of the cerebro-spinal axis; for it shows that two glands have been proved to possess cerebral nerves acting as motors: that the lachrymal derives a motor filament from the fourth or third nerve, or from both; that the sublingual derives branches from the ninth; that the mammæ are innervated direct from the spinal cord; and that, in every case in which glands are not yet proved by anatomical evidence to possess positive motor nerves from the cerebro-spinal system, physiological, pathological, and often therapeutical facts, prove that they must be so innervated, while anatomy offers no evidence whatever to the contrary. The therapeutical consequences of the establishment of this large anatomical and physiological generalization are unspeakably great, and cannot even be foreseen at once in all their magnitude. Each physician can, however, *think out* for himself, according to the measure of his faculties and insight, the extent of the therapeutically revolutionary doctrine involved in the statement, that diseases of the skin and of each mucous membrane, to the extent at least to which their glands and their blood supply are concerned, are, according to the evidence already rendered, nervous diseases, and that the most scientific method of treating them is through the agency of the nervous system.

"But it seems to me that the present state of anatomical and physiological science justifies the extension of this generalization still further, by enabling us to prove analogically, and also by means of some important facts directly relating to certain structures in question, that the constituent elements of the tissues forming every organ of the body are as completely under the control of the nervous system as is each individual cell of the cutaneous, mucous, or special glands. The limits within which I desire to confine this introduction preclude me from entering at length on this subject here, and I content myself now with stating my conviction that, in the same way as gland cells are shown to become attractive to the blood supplied to them by virtue of nervous influence exerted directly upon them, so the cells forming all other structures of the organism are endowed with their peculiar elective affinities for those elements of the blood needed for their nutrition and especial purposes by the agency of centrifugal, or positive motor nerves

operating directly on the cellular elements of each structure.[1]

"Assuming this proposition fairly proveable, we should be able to say of the bodily structures generally that, in addition to the sensory nerve supplied to each, there are two motors: one exercising on the cellular constituents of the structure a stimulant influence, causing it to attract blood to itself; the other, by stimulating the muscular coat of the arteries, causing them to contract, and thus to regulate, restrain, or even to arrest the blood-supply. If this doctrine be at once true and applicable to the whole body, it appears that healthy life, like the perfect movements of the planets, consists in an equal balance of two opposing forces; and that while considerable perturbations of those forces are not inconsistent with health, any great subordination of the one to the other induces, or, indeed, constitutes disease, in the structure in which it occurs. Inflammation ending in death by conflagration of structure is induced when the positive motor nerve has become exclusively active; anæmia, also ending in death by mere cessation of the vital processes, is induced when the negative motor nerve is exclusively active. There are few constitutions, I apprehend, in which the relative strength of the positive and negative motor nerves, or, to go further back, the cerebro-spinal and the sympathetic nervous systems, is adjusted to a perfect standard. The greater or less relative strength of each in the organism is, I believe, the ultimate physical fact lying at the foundation of, and determining the character of, national and individual temperament. The differences in different individuals in this respect account, in my opinion, for the widely different effects which are produced in them by the application of cold or heat along the spine.

"I will sum up this section by stating, in a series of brief propositions, the main conclusions which have been arrived at:—

"1. That the chief function of the sympathetic nervous system consists in regulating the diameters of the blood-vessels throughout the body.

"2. That when the sympathetic ganglia are in a state of maximum hyperæmia the nervous effluence from them to the muscular coats of the arteries to which they are severally related stimulates them so excessively as to induce in them a condition of tonic spasm—a spasm so intense as to result in shutting off the blood altogether from a large proportion of the peripheral arteries.

"3. That when the sympathetic ganglia are in a state of maximum anæmia the nervous effluence from them to the muscular coats of the arteries to which they are severally related becomes so extremely feeble that a condition resembling paralysis is induced; the muscular coats of the arteries become consequently extremely relaxed; and, as the blood flows in the direction of least resistance, the parts supplied by the arteries in question become suffused with blood to an excessive degree.

"4. That when the spinal cord is in a state of hyperæmia, cramps of the involuntary muscles surrounding the alimentary tube as well as cramps, or even convulsions of the voluntary muscles, which are due to such hyperæmia, are likely to ensue.

"5. That every gland and glandular follicle in the body is under the control of one motor nerve (which I call the negative motor) emerging from the sympathetic system, and distributed to its artery or arterial twig, in order to regulate its blood-supply; and of another motor nerve (which I call the positive motor) emerging from the cerebro-spinal system, and distributed to its secreting cells in order to regulate its functional activity.

"6. That in the same manner as glands are supplied with positive motor nerves, so, there is reason to believe, every tissue of the body is thus supplied, and is thus placed and sustained in a state of elective affinity for the elements of the blood requisite for its nourishment and functions.

"7. That the sympathetic ganglia and the spinal cord can be rendered hyperæmic or anæmic, artificially, by means of heat, in the one case, and cold in the other, applied along the spine.

"8. That by means of heat applied along the spine the general circulation may be lessened, the activity of the glandular system may be increased, and cramps of both the voluntary and involuntary muscles may be induced.

"9. That by means of cold applied along the spine the general circulation may be increased, the activity of the glandular system lessened, and cramps of both voluntary and involuntary muscles may be arrested or prevented." (Pp. 13, 14, 15).

Dr. Chapman's hypotheses concerning the nature of diarrhœa and cholera, and his proposed method of treating these diseases, are founded on the foregoing propositions: those embodying the physiological doctrines, of which we have given an outline, are the basis of his pathological theory, while each and all underlie and sustain his principle and method of treatment. He is of course anxious therefore to demonstrate the truth and ensure the admission of those propositions before he proceeds to devolop the hypothesis in question, and therefore adduces not only physiological facts and arguments, but an extensive series of therapeutical experiences in their support. As it is scarcely possible to over-rate the importance of those propositions if true, and as we quite concur with him in regarding his whole theory as baseless if they be untrue, it seems to us desirable *in limine* briefly to review them.

No. 1 has, we think, been so clearly demonstrated by several eminent physiologists who have repeated the experiments first made by Bernard, that its truth must be recognized as established. The same remark is equally applicable to No. 2 and to No. 3.

It must, however, be admitted that No. 4 would not command the assent of every physician: Dr. Bland Radcliffe teaches an exactly opposite doctrine. But he stands almost alone; and certainly all the most eminent physiologists and pathologists agree in considering hyperæmia of the spinal cord as the condition precedent, of cramps and convulsions. This condition, so excessive as to develop into actual inflammation, is now known to be the proximate cause of tetanus;[1] and its presence as the characteristic pathological feature of cerebro-spinal fever or "black death" is generally recognized by the spasms or convulsions which the victims of that disease generally suffer. Indeed it appears to us that in his paper on the treatment of epilepsy, already published in this journal, Dr. Chapman finally settled this question by showing that when in cases of cramp or convulsions, the spinal cord is subjected to a sedative influence by the application of the spinal ice-bag, the abnormal muscular contractions cease; and his evidence has recently been confirmed by Professor Morgan, who, in his recent and interesting report[2] of his successful treatment of cerebro-spinal inflammation by the spinal ice-bag, gave evidence that it was of service "in the reducing of the muscular tension." But in fact this effect of ice applied along the spine was long ago recognised by Dr Todd as pointed out by Dr. Chapman, who, in one of the series of papers on cerebro-spinal fever contributed by him to this journal has given a summary of seven cases of either tetanus or tetanoid affections, in which cold applied along the spine exercised the most decisive power in reducing the muscular tension. It seems to us, therefore, that proposition 4 is indubitably established.

No. 5, if not more doubtful, is certainly much more novel, and depends for its support, in so far as the mucous and sweat glands are concerned, on observations made by Dr. Chapman himself; but his observations are only confirmatory of the anticipations of Claude Bernard—anticipations founded on his discovery of the mode of innervation of the salivary glands, and justified by sound analogical reasoning. Hence, as we know of no facts contravening this proposition, it seems to us deserving provisional acceptance at all events.

Proposition 6 carries us into a region which though exceedingly interesting and probably not less important, remains, so far as we know, almost wholly unexplored. The doctrine in question is, however, mentioned by the two most distinguished and authoritative neuro-pathologists of the present day, viz:—Claude Bernard[3] and Browne-Séquard,[4] and it is countenanced by a large number of pathological facts.[5] One of these, as it seems to us, and a very striking one,

1 The reasons in support of this proposition Dr. Chapman says he shall adduce on a future occasion.

1 See the valuable paper on the Pathology of Tetanus, by J. Lockhart Clarke, published in the *Lancet* Sept. 3, 1864.

2 Published in this Journal, Sep. 11.

3 Comptes rendus des séances de l'Academie des Sciences, Sept. 6, 1858.

4 Lectures on the Physiology of the Nervous System, p. 173.

5 A very interesting and important illustrative fact is mentioned by Mr. Paget in his Lectures on Surgical Pathology, vol 1, pp. 43-6.

was mentioned by Professor Morgan in his report already referred to: he says,—"a curious blush was distinct over the lower half of the body, having the appearance of a capillary excitement of the skin, and not of a rash," and, "what was remarkable, the immediate effect of the application of the spinal ice-bag was, *inter alia*, diminution of the blush over lower limbs." Now, unless this "curious blush" or "capillary excitement" was produced by a direct stimulus from the nervous system, or by what Dr. Chapman calls, "positive motor nerves" distributed to the cellular elements of the skin, we do not see how the application of cold along the spine could have effaced that blush, as it is said to have done by a competent observer whose power of seeing was unbiased by any preconceived theory.

Since Dr. Chapman's first announcement of the doctrine expressed in proposition 7, its truth has, we believe, been questioned by almost all Physicians who have given any attention to the subject. Considering the amount of flesh lying between the nervous centres along the back and the surface of the skin, and that blood of an uniform temperature is always coursing through that flesh, they are sceptical of the possibility of modifying the temperature of those centres by any external applications of cold or heat which may be tolerable by, and not injurious to, the patient; and we confess ourselves to have been among the sceptics. But, after all, the question is a question of fact, and can only be decisively settled by an appeal to experience. And now, looking carefully into the subject, we are obliged to admit that, so far as we are yet able to judge, experience is deciding in favour of Dr. Chapman. Facts are stubborn things, and so many of them seemingly attesting the truth of the proposition now adverted to, are cropping up in various directions, that many members of the Profession who not long ago expressed their disbelief in it, now think it ought to be carefully examined. We happen to know that when Dr. Chapman first announced it in 1863, Dr. Brown-Séquard expressed his disbelief in it in the most decisive and practical way; but in 1866 he says:—

"Whether Dr. Chapman be right or wrong in his explanations, he at any rate relates facts which deserve to attract the attention of the Profession. We are not frequently enough successful in our treatment of neuroses to neglect means which, according to his statements, have cured so many cases of epilepsy or other nervous affections. It is to be hoped, therefore, that Physicians of large hospitals will give a fair trial to the means he proposes, and ascertain the real value of cold applications to the spine in the treatment of neuroses. I may mention that a patient of Mr. Earnest Hart has been cured of epilepsy and progressive atrophy of the optic nerve by his applying ice to the spine, and that the same patient had only derived a slight benefit from the use of the valerianate of atrophia under my care."—(*Lancet*, Feb. 10, 1866.)

We remember hearing about a year ago that Dr. W. B. Richardson asserted most positively that ice applied along the spine is incapable of lowering the temperature of the spinal cord, and that it cannot so affect the vaso-motor nerve-centres as to induce an increase of the peripheral circulation; but, according to a statement in the last of his recently-delivered lectures, he now goes so far as to recognize that in a case of chorea the reduction of the temperature along the spinal column by the æther-spray caused "immediate relief to the convulsive symptoms," and that "in this direction there is much room for new research."—(*Medical Times and Gazette*, Sept. 28, 1867.) Perhaps the great refractive power of "the spray" will enable him to see ere long that ice also is capable of influencing the spinal cord. If it be established, as it seems to be, beyond all reasonable doubt, that cramps and convulsions denote hyperæmia of the nervous centres related to the muscles affected, then the evidence adduced in support of proposition 4—viz., the facts proving that ice along the spine subdues those abnormal muscular affections—applies here. If cold exerts the remedial influence in question by producing anæmia of the nervous centres over which the cold is applied, it follows inevitably, as it seems to us, that an exactly opposite condition—viz., hyperæmia, will be produced by the application of heat. Dr. Chapman mentions many facts which we have not yet adverted to, but which might be brought in support of proposition 7; and on the whole we feel constrained to say that if only admitted provisionally as a reasonable hypothesis, it affords an explanation, more satisfactory than any other, of the frequently observed and well attested effects produced by applying cold or heat along the spine. We know of numerous facts which, though first pointed out by Dr. Chapman, have been attested by several other observers.

Proposition 8 contains three distinct assertions, each of which needs to be dealt with separately. (1.) It is stated that "by means of heat applied along the spine the general circulation may be lessened." Dr. Chapman has published several cases illustrative of the efficacy of heat, properly applied along the lower third of the spine, as a remedy for menorrhagia, and we know that other physicians have experienced the power of heat thus applied in arresting uterine hæmorrhage. Moreover, Dr. Chapman states that he has proved that pulmonary hæmorrhage can be restrained in the same way, and Professor Bencke, of Marburg, has confirmed his statement by reporting (in the *Archiv für wissen-schaftliche Heilkunde*) a case of phthisis associated with pulmonary hæmorrhage, which could not be arrested by any of the medicaments usually employed in such cases, but which was speedily stopped by the application of heat along each side of the dorsal spine. Now, if through the agency of the nervous system, heat can affect the contraction of the peripheral arteries of the lungs and womb, so as to lessen or prevent hæmorrhage from those viscera, it seems impossible to escape the conclusion that the other parts of the body may be influenced in like manner. (2.) "By means of heat the activity of the glandular system may be increased": the physiological reasons for this statement have already been given; experimental proofs of its truth are few, and, excepting an interesting fact communicated by a lady to ourselves, viz., that heat to the lower part of the spine increases the leucorrhœa from which she suffers, these proofs are not forthcoming, so far as we know, from impartial observers, but are reported by Dr. Chapman himself. He relates facts showing that the action of the bronchial and intestinal mucous membrane may be increased by the use of the spinal (warm) water bag. The question deserves to be thoroughly investigated, and, meanwhile, we must add that though in respect to it, recorded experience affords but little light, what is actually known concerning the innervation of glands affords a strong presumption that Dr. Chapman's assertion is correct. (3.) "In some cases cramps, of both the voluntary and involuntary muscles, may be induced" by heat applied along the spine: that these morbid conditions can be subdued by cold thus applied, the evidence already adverted to conclusively shows, and, if so, it may reasonably be expected that heat will favour the development of those conditions. It seems impossible either to gainsay the evidence proving that menorrhagia has been repeatedly stopped by heat applied along the lower part of the spine, or to withstand the conviction that when heat thus operates, it does so by inducing muscular contractions of the uterine arteries. Now, cramps are but unduly powerful and prolonged muscular contractions; or, in other words, a slight increase of the condition induced by heat when it is used to arrest uterine hæmorrhage. The statement that cramps of voluntary muscles may, "*in some cases*," be induced in the same way is justified we believe, as yet, only by the experience of Dr. Chapman; but considering the evidence now accessible in support of the several propositions which we have discussed, and the countenance given by the analogical argument to his statement, we hold it to be not only possibly, but probably, true.

The main body of facts proving the last of these propositions (9) consists of numerous reports of cases published by Dr. Chapman: in his first monograph he has given six cases of defective and painful menstruation in which the spinal ice-bag, while stopping the pain, increased the flow; also several cases in which habitual coldness of the

feet was cured by the same means; and two cases in which cold to the lower part of the spine stopped leucorrhœa. Moreover, this monograph contains cases exemplifying not less decisively the cure of cramps and convulsions by the same method. Dr. Chapman's papers on epilepsy and paralysis, which were published in this Journal, contain many facts which concur in fully proving, as we think, the truth of his last proposition. We may add that several independent observers have proved the efficacy of the spinal ice-bag in the treatment of diarrhœa, and that in a desperate case of chronic and profuse leucorrhœa, a general practitioner of our acquaintance effected a rapid and complete cure by the use of the "lumbar ice-bag" alone. Dr. Chapman maintains that diarrhœa and leucorrhœa are examples of excessive glandular activity, and that in so far as the discharges are concerned, the spinal ice-bag operates remedially by lessening the force of the positive motor nerve currents distributed to the mucous glands, and which were stimulating them with abnormally powerful intensity. We know of no other explanation so reasonable as this, and are therefore of opinion that the whole of Dr. Chapman's ninth proposition—viz., "that by means of cold applied along the spine, the general circulation may be increased, the activity of the glandular system lessened, and cramps of both voluntary and involuntary muscles may be arrested or prevented" is fairly established.

As already said these propositions are the basis on which Dr. Chapman builds his elaborate theory of the nature of diarrhœa and cholera, as well as of the treatment which he thinks most scientific and successful. In our next article we hope to present an analysis of that theory, and to discuss its merits.

Hospital Reports.

MEATH HOSPITAL.

CASE OF IRREDUCIBLE INGUINAL HERNIA.

Under the Care of Mr. MACNAMARA.

[Reported by Mr. EDWARD J. COOKE, Resident Pupil.]

JAMES COLEMAN, æt. 38, a single man, of sallow complexion, but says he has always been healthy, excepting that his bowels were habitually costive, was admitted into the Meath Hospital, August 27, 1867, under the care of Mr. Macnamara. On examination it was found that he had an irreducible inguinal hernia of the left side, which filled the scrotum to an enormous size. He states that some three years back, when lifting a heavy weight, he felt something give way at the lower portion of his abdomen; he examined the parts, and found a tumour about the size of a small hen egg, as could be collected from his description, at the external abdominal ring; he did not mind it at the time, as it did not give him the slightest inconvenience; he never applied for medical advice. For two years and a half the tumour remained the same size, when one day, while lifting a sack of flour, he got sick in his stomach, and had to go to bed; when he was stripped he observed an immense tumour in his scrotum; this accounted for the vomiting, which soon ceased. Without doing anything for it he went to work next day, and remained at work for two days, after which time he said he could not walk on account of the weight of the tumour, and also on account of the pain it caused him. He was then taken into another of the Dublin hospitals, where he says they gave him medicine, and tried to put it up, but did not entirely succeed; he was ordered a truss, and left the hospital. This was last March. He had been in hospital for five weeks, and left wearing a truss, but it did not keep up the intestine, and for some months he walked about with the hernia in his scrotum, as he had taken off the truss. As he could not work he applied again, about two months ago, to the same hospital, telling them to do anything at all with him, so that he might be able to work. They tried to reduce it but failed, and after keeping him in for some weeks, dismissed him, telling him that nothing more could be done for him. He still walked about, but life was a burden to him, when he applied to the Meath Hospital, and Mr. Macnamara took him in, stating at the time that he would not do so were he unmindful of a case he had in last year. A man was brought into the accident ward with a sprained ankle, and by chance Mr. Macnamara observed he had a large hernia, which filled the scrotum; he tried to reduce it and failed, but before the sprain was well the patient told him one morning that the swelling in the scrotum had disappeared. On looking he found it so. This hernia was got up by rest. He went out in a few days wearing a truss, and was quite delighted, as he had been told by several that nothing could be done for him.

Having this case in view, Mr. Macnamara took in Coleman on the 27th of August; could not reduce his hernia, but put him on low diet and rest, in the recumbent position. On the 14th of September it had nearly disappeared, when Mr. Macnamara returned it completely into its natural cavity, put a pad on the external abdominal ring, and a spica bandage over it. He is going on well.

Mr. Macnamara's chief reasons for having this case reported are—*First*, To impress on all students the necessity of daily attendance at hospital, as such a case as this might, if presented to them in after life, be looked on as hopeless, were they to forget the practical clinical instruction they have had so often impressed on their minds in the wards of the many valuable institutions in which this city abounds; and, *secondly*, to impress the necessity of the strictest observance as to the low diet and recumbent position of the patient, while the hernia remains still irreducible.

JERVIS-STREET HOSPITAL.

CASE OF TRAUMATIC GANGRENE: AMPUTATION OF THE ARM AT THE SHOULDER-JOINT.

Under the care of Dr. MELDON.

[Reported by Mr. A. BOYD, Resident.]

JAMES WATERS, a strong, muscular man, aged 36 years, a blacksmith by trade, was admitted into hospital on the evening of the 15th of September, suffering from gangrene of the right arm, extending to within four inches of the shoulder-joint.

On Wednesday, the 11th, he had received a gunshot wound in the forearm, below, and in the immediate proximity of the internal condyle of the humerus. The shot did not lodge, but appears to have carried away the integuments, muscles, and blood-vessels, leaving the radius and ulna bare, but not fracturing either. The hemorrhage was immediately checked, and the wound dressed.

On Friday, 13th, two days after the accident, gangrene set in. The Surgeon who attended proposed amputation, but the patient would not consent to the operation.

The gangrene continued to advance until Sunday, the 15th, the day of admission into hospital, and was well marked all up the hand and arm. He had not slept since the accident. A charcoal poultice was applied, an opiate given, and stimulants freely administered.

On Monday, 16th, Dr. Meldon amputated the limb at the shoulder-joint. The operation consisted in excision of the humerus from the glenoid cavity, and the formation of an internal and an external flap. The former was a good deal discoloured; the latter, although apparently healthy, was necessarily cut small, as the parts in the vicinity were œdematous. He slept well after the operation, was free from pain, and seemed in good spirits. During the night he sweated profusely and complained of great thirst. Brandy and beef-tea were freely administered.

17th.—Patient easy. Complains of no pain. Stump warm. Pulse 104, weak and compressible. Skin acting very freely. Sero-purulent discharge from the wound. Ordered turpentine punch.

6 P.M.—Temperature of flaps continued normal.

10 P.M.—Temperature of external flap had fallen several

degrees. During the night bullæ formed, and its surface assumed all the characters of gangrene, the internal flap remaining healthy.

18th, 8 A.M.—The patient seems worse; slept badly; pulse very weak and compressible. The gangrene has extended to the neck and anterior part of chest.

19th.—Patient passed a bad night. Pulse flickering and barely perceptible. Right shoulder and neck much swollen. Complained of difficulty of breathing. Accumulation of mucous in the mouth and larynx. Patient sank gradually until 1 P.M., when he died.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR SEPTEMBER, 1867.

1 Companies.	2 Date and Place of Collection.	3 Total solid impurity in 100,000 parts.	4 Organic Carbon.	5 Nitrogen as Nitrates and Nitrites.	6 Ammonia.	7 Total Combined Nitrogen.	8 Previous Sewage Contamination (Estimated.)	9 Total Hardness.
THAMES.								
Chelsea ...	SEPT. 2ND. Cab-rank, Horse Guards.	25·90	·193	·188	·001	·194	955	18·71
W. Middlesex ...	SEPT. 2ND. Cab-rank, Portland-road.	24·60	·173	·151	·001	·159	605	17·82
Southwark and Vauxhall ...	SEPT. 2ND. Barclay's Brewery.	25·54	·197	·144	·001	·152	535	18·85
G. Junction ...	SEPT. 2ND. Cab-rank, Woodstock-street.	25·60	·170	·162	·002	·169	705	19·42
Lambeth ...	SEPT. 2ND. Cab-rank, Lambeth-road.	26·44	·237	·157	·001	·166	675	19·14
OTHER SOURCES.								
New River ...	SEPT. 2ND. Cab-rank, Tottenham-ct.-road	23·90	·115	·322	·002	·327	2285	18·85
E. London ...	SEPT. 2ND. Company's Works, Old Ford.	24·74	·183	·194	·001	·202	1035	17·42
Kent ...	SEPT. 4TH Deptford Railway Station.	39·90	·099	·450	·003	·454	3555	26·14
Loch Katrine ...	FEBRUARY. Glasgow.	3·28	·256	·031	·002	·041	0	0·3

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, when submitted to the same analytical processes. The numbers in columns 3, 4, 5, 6, 7, 8, and 9, all relate to 100,000 parts of the waters. The table is to be read thus: 100,000 lbs. of Chelsea water collected on Sep. 2nd. at the Horse Guards cab-rank contained 25·90 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·193 lb. of carbon. This solid impurity also contained ·188 lb. of nitrogen in the form of nitrates and nitrites, besides ·001 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·194 lb. The above quantity of water supplied by the Chelsea Company had been, after its decent to the earth as rain, contaminated with sewage or manure matter equivalent to 955 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames or its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been entirely converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 18·71 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

All the waters were clear and transparent when drawn from the companies mains, except that delivered by the Southwark Company which contained, as it invariably does, a considerable amount of suspended matter.

ROYAL COLLEGE OF CHEMISTRY.
London, Sept. 28th, 1867.

Reviews.

A MANUAL OF PHARMACODYNAMICS By RICHARD HUGHES, L.R.C.P., Ed. (Exam.), M.R.C.S.L. (Homœopathic.)

THIS book purports to be a manual of Homœopathic practice. Should any copy survive the trunkmaker it will serve to shew future generations that the boasted intelligence of the nineteenth century was not able to protect us from quackeries of the gravest kind. The extent of credulity that our race is capable of, appears to be unlimited. A few days since, we received a circular informing us that in exchange for the trifling sum of £100 sterling, we should be guaranteed a fabulous dividend, payable weekly or monthly, by becoming instructed in a peculiar system of betting on horses, but Homœopathic beats this, it is only needful to exhibit infinitesimals, and secure golden results.

One sentence of the authors (p. 17) deserves our praise; he asserts "the distinctive feature of Homœopathic pharmaceutists—the Globule, I have said nothing about it, because I can't commend its use."

Another glimpse of truth is found in the following remarks on Anæmia, by which term the writer evidently means the Spasmodic condition accompanying chlorosis: "Who has treated such cases by Homœopathic remedies alone without profound impatience and dissatisfaction—if iron is to do good in amæmia it would seem to be on chemical principles and therefore in chemical doses."

REMARKS ON CHOLERA. By W. JACKSON CUMMINS, M.D. Dublin: Falconer. 8vo, pp. 20. 1867.

THIS pamphlet is a reprint from the August number of our valued contemporary, the *Dublin Quarterly Journal*, to which periodical Dr. Cummins, of Cork, is a well and favourably known contributor. It principally relates to the sanitary aspect of cholera, and has especial reference to Cork and its neighbourhood. The citizens of Cork will do well to read it, and having done so, they will do well to make their Corporation look sharply to their sanitary interests.

ROYAL COLLEGE OF SURGEONS, ENGLAND.—The Council of this Institution has just given notice that, on and after October 1, 1868, all candidates presenting themselves for the final examination for the Diploma of Fellow or Member of the College, as the case may be, will be required to pass an examination in Medicine at the College, or to produce a recognised degree, diploma, or licence in Medicine, before receiving the respective diplomas of the College. Notice has also been given that the next primary and pass examinations for the diploma of Member of the College will take place on November 2 and 9, and that for the Fellowship on November 18.

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The Medical Press and Circular.

"salus populi suprema lex."

WEDNESDAY, OCTOBER 9, 1867.

THE SEWERAGE QUESTION IN RELATION TO DUBLIN.

We are glad to find that the press, both general and medical, is taking up those most important questions connected with the sewage of our cities and towns, to which we have for a long time drawn attention, for it is not only the material man, but also the moral man, that is influenced for good or for evil (as Sir James Simpson has recently said), by his surroundings.

We have on a former occasion pointed out in these pages the truth of such statements as those lately made by Sir James. We then instanced the habitat, so to say, of the New York riots of a few years since. It is indeed well-known how often disaffection and riot, revolution and bloodshed, have arisen in the polluted and unhealthy haunts of misery and crime that still too frequently abound in all great cities. It is an important truth that waste is not allowed, in the strict sense of the word, in nature. The great Author of Creation has abundantly demonstrated to us, in the workings of the various parts of the natural kingdoms, no less than by His direct teachings, the importance of this law; and we have at the present day abundant evidence of the ill consequences of neglecting those teachings. It is on this principle that every mode of dealing with the sewage of our dwellings that causes the loss of the fertilizing elements contained therein, recoils sooner or later upon us; and the time is come when engineering skill and the vast interests of the building trade must no longer alone be entrusted with the solution of the important question under our consideration.

The civic authorities of the second city of the empire have been at the cost of bringing over an eminent authority from London to solve the difficulty so far as Dublin is concerned. We cannot find fault with the Town Council of the latter city for endeavouring to obtain first rate advice upon the subject; but it does not appear to us that the vast undertakings carried out by the engineer of the London Main Drainage, and of the works at Hastings or St. Leonard's, have as yet given a permanent and satisfactory solution to this important question.

The evidence long ago given by Captain Burstal and other observers on the effect of carrying sewage into a tide-way is again and again borne out by the results obtained in Dublin, in the sea at Brighton, Kingstown, and all other places where such a practice is followed. A medical contemporary points out the fact that at Brighton the sea-water is now so contaminated by the sewage, though carried out by pipes into the sea a distance that was thought sufficient to insure its removal from the town, that the sea-water for the supply of baths has now to be obtained from Clifton-ville, a distance of two miles, "in consequence of the defilement of the sea within the precincts of the town."

Notwithstanding the contrary evidence afforded by works already in operation, we find that the Special Committee of the Municipal Council of Dublin, after several months deliberation, and after considering "a multiplicity of suggestions," having also had the advantage of a visit from the Engineer of the London Main Drainage Works, and with the sanction of their own Engineer, &c., have, notwithstanding the views contained in all the suggestions submitted to them,* determined that "the best and only means of getting rid of the nuisance, was the construction of intercepting sewers, which would divert the entire city sewage from entering the Liffey at all."

We quite concur in the latter part of the recommendation, but not in the means suggested to accomplish it, for most assuredly the method proposed in the following suggestion of the Committee, will not effect the object:—

"That two level gravitating sewers be constructed within the Liffey walls on the bed of the river, between Victoria and Carlisle Bridges, on the north and south sides, each sewer to be six feet wide, seven feet deep; the channel course to be formed of an inverted oval-shaped brick arch, gravitating so that the centre of said arch shall not be lower than four inches below the mouth of the lowest discharging sewer into the river. These intercepting sewers, when they reach Carlisle-bridge, should be directed under the quays at either side; one on the south side to be carried to the end of Sir John Rogerson's-quay, where it will discharge itself into the sea, the other on the north side, viz.—Eden-quay, Beresford-place, &c., till it reaches the East Wall, where it will also discharge itself into the sea. These sewers your Committee calculate might be constructed for a sum not exceeding £30,000; they will not necessitate the use of syphons, or pumping stations, which it is desirable should not be used when they can be avoided. Neither will this scheme render any application to Parliament necessary, as no existing rights will be infringed upon, nor will any compulsory obligations be thrown on others. Your Committee further suggest that the construction of the sewers within the Liffey walls is attended with many advantages compared with constructing them under the quays."

* *Saunder's News-Letter*, 17th September, 1867.

The objections to this suggestion of the Committee of the Municipal Council of Dublin will suggest themselves at once. How can it be supposed for a moment that the discharge of these monster cloacæ amongst the shipping, and barely even on the outskirts of the city, into a strong up-tide, will be authorised when it is considered necessary to carry the London sewage twelve or fourteen miles before discharging it.

How can sufficient fall be made to prevent silting up of the two great sewers? How long would the Admiralty and the shipping and canal trade of Dublin submit to the formation of banks of mud, sand, and offensive matter at Ringsend and East Wall? Yet the Committee say no existing rights will be infringed upon. Have the Committee not learned that a nearly similar plan was proposed for London several years ago, but abandoned as impracticable?

We will not detain our readers by observing at length upon the impossibility of obtaining water in sufficient quantity to flush out these intercepting sewers, even if the levels of the present sewers and of the river bed permitted this, nor will we now inquire at length into the effect that would follow to the bed of the river itself, nor into the effect of floods from heavy rains if this plan was carried out.

Lastly, we would ask have the Committee been exactly informed as to the cost of adjusting the out-falls of all present sewers, of securing foundations, bridges, for if the present deficiency of sewers in many parts of Dublin, and the great need for continual cleansing and repairs, is to be overlooked until the intercepting sewers are constructed, we cannot augur well for the public health.

Notes on Current Topics.

THE PRINCESS OF WALES.

During the protracted illness of the Princess we gave from time to time such information as we considered of public interest concerning her case. We are happy to be able to report that our best hopes have been to a large extent realized, and our predictions completely verified. At the St. Bartholomew's Hospital dinner yesterday week, Mr. Paget, who left the Princess at Wiesbaden on Sunday week, expressed his pleasure that at his departure the health of H.R.H. was "superlatively satisfactory." He added, "it is with profound and heartfelt pleasure that I am enabled to announce, by permission of the Prince of Wales, that the limb is progressing most favourably, and that her Royal Highness will shortly return to England, fully capable of participating in all duties and pleasures connected with her exalted rank and very great popularity." To this satisfactory announcement we may add that at the time of our going to press there were rumours that H.R.H. might be amongst us before we issue our next number.

REGISTRATION.

Qualified Practitioners who have not yet registered, may appear on the Register for 1858 if they send in their names at once. Additional qualifications lately obtained by those already on the Register are inserted at a low fee. No charge is made for changes of residence. Students also must register their names, and should not neglect doing so *at once*, or they may cause themselves much loss of time, temper, and even money. It must be done and had therefore far better be done in order and without delay.

ANOTHER CONVALESCENT HOSPITAL.

Our contemporary, the *Sunday Gazette*, a well-informed paper, says that no less than £250,000 has been handed over to trustees by one munificent gentleman, for the purpose of establishing a Convalescent Hospital for London. We have heard that this is the Institution which is to be in intimate connection with St. Bartholomew's, and which is to enjoy Royal patronage—the one in fact which gave rise some time since to erroneous reports respecting her Majesty's share in establishing it. We do not vouch for the accuracy of our information, but we believe it is quite correct. We are glad to hear that such a sum is forthcoming, and we utter our full admiration of the modest donor who wishes his name to remain unknown. His generosity will be the theme of many a poor invalid's gratitude.

THE LONDON COLLEGE OF SURGEONS.

Notice has been given that from the 1st of October, 1868, all candidates for the diploma of this college who have not previously obtained a medical qualification will be subjected to an examination in medicine. This is a step which will, no doubt, ultimately lead to the general adoption of the double diploma system in London. The negotiations said to be concluded between the Colleges of Physicians and Surgeons for joint examinations will no doubt result in a scheme as easily worked and as much approved by students in London as they have been in Edinburgh. We remember too that the Glasgow faculty has made arrangements of the kind with the Edinburgh College of Physicians. Cannot the London Society of Apothecaries' effect the same with the London College of Surgeons. This could not possibly fail, for it would offer students the two most useful qualifications for general practice throughout England and Wales. The society has ever been liberally disposed. We should be glad to hear they had been able to agree with the College of Surgeons for joint examinations and the issue of the double diplomas

THE ALLEGED FENIAN OUTRAGE IN HOLBORN.

Edwin M'Donnell, the bandsman who was shot down in Holborn, died on Friday afternoon at the University College Hospital. He was attended in his last moments by his mother, who had been with him since the previous Saturday. He had passed a bad night, and soon after ten o'clock on Friday morning he changed decidedly for the worse, becoming rapidly weaker, and continuing to do so until his death, which took place at 2·45 P.M. His sinking condition was telegraphed to Windsor at eleven A.M. to the surgeons of the 2nd Life Guards. On Friday, shortly after one o'clock, Colonel Marshall went to the hospital, and remained with the unfortunate deceased, who was conscious to the last. It is only an act of justice to record the expression of the deceased's oft-repeated thanks for the unbounded kindness of the authorities at the hospital.

MEDICAL DINNERS.

As Englishmen can, it is said, do nothing without a dinner, so it is not surprising that in some cases the occasion of the Introductory Lectures at the Hospitals should be seized to unite the old pupils, the teachers, and others around the festive board. A large number of gentlemen meeting together to celebrate their *alma mater* may well think their labours incomplete without a dinner, with its accompanying toasts and speeches. This year St. Bartholomew's, the London, University College, and the Middlesex Hospitals, have all held their dinners, and all have been, we believe, satisfactory to those present. The custom seems likely to grow, and perhaps one element of its success is that some who are prevented from going to the introductory address may find time to meet their friends at the dinner.

INEBRIATE ASYLUMS.

The *Philadelphia Reporter* says, that the experience of the Inebriate Asylums at Binghampton and Media is most encouraging. There is, unfortunately, more demand for admission than can be supplied, and the curative results are said to be very satisfactory. We have forcibly advocated the extension of this system to Great Britain, and we propose to return to the subject. It is not to the credit of our social civilization that a system so much-needed and so promising should have attained efficiency at the other side of the Atlantic, while it has been unthought of here.

SUDDEN DEATHS.

The death is announced of Assistant-Surgeon W. N. Pell, at Murree, who was found dead in his bed. The post-mortem examination disclosed the extraordinary fact, that death was caused by the collapse of cholera, which had not been known to have manifested itself. The form of the disease prevalent at the station has, however, been very virulent. The surgeon of H.M.S. Excellent has also died from the effect of an over-dose of morphia solution, from the effects of which he died without being able to call for assistance.

STINKING FISH.

Anything more unwholesome for food than decomposing fish can scarcely be imagined, and yet all round our coast there is reason to believe it is constantly sold. At Southampton the local authorities have recently fined several of the vendors of this disease producing substance, and we hope, there and everywhere else, the practice of selling as food what is only fit for manure, will be put down with the rigour it deserves. It is a question to which we direct the attention of the Health Officers in the various ports. London has set a good example in the endeavour to put a stop to the sale of diseased or unwholesome meat, and we trust, for the sake of the poor, who are, of course, the chief sufferers, that conviction will in each case be followed by a severe sentence.

FEVER AT GUILFORD.

The very severe epidemic of typhoid fever which has invaded this town, and in which three hundred persons have been attacked out of a population of 8000, has been traced, with every appearance of reason, to the contamination of a well by sewerage. The district in which the disease has been concentrated, is almost identically that which was lately supplied with water from this well, which takes its supply close to the outfall of one of the sewers. The disease is now on the decline, and Dr. Buchanan has been sent down by the Privy Council to institute scientific inquiries into its cause.

THE PUBLIC HEALTH.

In the ten large towns reported by the Registrar-General, there is a decrease in the mortality from diarrhœa coinciding with the colder weather we have lately experienced. The number of deaths from this cause fell from 436 to 336 in the week. Of these, 108 deaths occurred in London, 62 in Manchester and Salford, 58 in Birmingham, 26 in Sheffield, and 25 in Liverpool. The annual death-rate per 1000 from this cause during the week was 2 in London and Bristol, 3 in Liverpool, 5 in Leeds and Newcastle, 6 in Sheffield, 7 in Manchester and Salford and Hull, and highest, 9 per 1000, in Birmingham. Scarlatina was fatally prevalent in Manchester, Liverpool, and Birmingham. The total mortality of London during the week was 1194. This is a favourable number, being 79 deaths below the average. The deaths registered in London from zymotic diseases last week were 324. The deaths of 103 children and 5 adults from diarrhœa were registered last week; 10 cases occurred in the west, 25 in the north, 18 in the central, 27 in the east, and 28 in the south districts. The deaths from diarrhœa during the last four weeks have been 198, 203, 114, and in the present return 108. The deaths of 15 persons from cholera or choleraic diarrhœa were registered last week. With this evidence of the continued action of the choleraic influence we may well regard with pleasure the crisp, cold weather that we have lately been favoured with. In the corresponding week of last year there were 67 deaths from diarrhœa, and 177 from cholera. Amongst other items we select the following from the deaths of the week:—From small-pox 17, from measles 14, from scarlatina 32, from diphtheria 7, from whooping-cough 26, and from typhus 26. Four deaths from typhus occurred in Westminster; from scarlatina, 5 in Pancras, and 6 in Clerkenwell. The deaths from phthisis were 138, from bronchitis 67, from pneumonia 41, and from heart 42.

In consequence of the progress of the new building, the University of London has removed its offices from Burlington House to 17, Saville-row. The examinations will, however, continue to be held in the usual rooms in Burlington House.

The approaching election of a Professor of Anatomy and Physiology to the Royal College of Surgeons of London, is looked forward to with much interest, and many names are mentioned as probabilities in the nomination. Prominent amongst those suggested is that of Mr. Lockhart Clarke, F.R.S., whose eminent physiological and histological researches, give him a powerful claim on such position. Mr. Le Gros Clark and Mr. Holmes, are also spoken of.

Yellow Fever appears to rage with great violence in the Southern States of America, and especially in New Orleans. In this city the deaths from yellow fever have reached the enormous total of 100 a day. Since August 1 no less than 42 officers of the regular army have perished, including General Griffin, who governed Texas under General Sheridan during the late war. Two of the military Surgeons are reported by the latest telegrams as dangerously ill.

Introductory Addresses.

ST. THOMAS'S HOSPITAL.

ABSTRACT OF INTRODUCTORY ADDRESS.

By Mr. SOLLY, F.R.S.

The lecturer said—About forty years ago, my young friends, I commenced the study of my profession in this time-honoured school of St. Thomas's Hospital, and though so many years have rolled over my head since I commenced my professional journey, time has not effaced the feelings of that day. I began that journey with high hopes and lofty aspirations; some have been crushed, some crumbled into dust, some faded away, some realized, but with all this I would if I could relieve this portion of my life, and start again with hopefulness in the same career. As travellers into this new country, you will not, I am sure, despise the advice of an old guide. I walked this path with joy, but now look back with regret that my time had not been better spent, and that many golden opportunities of reaping sound fruit have been lost for ever. I have likened you to travellers, but this is too tame a simile. Are you not rather warriors buckling on your armour to fight a noble fight for professional existence? Do not deceive yourselves. He who enters the medical profession must be prepared for a firm and uninterrupted struggle for existence. Having once enlisted you are no longer your own master; you have undertaken duties far higher than any accepted by mortal man, excepting, perhaps, those of the minister of religion. In all truth, then, may I say, A sacred burden is the life ye bear. Look on it, lift it, bear it solemnly; stand up, walk beneath it steadfastly.

> "Fail not for sorrow, falter not for sin,
> But onward, upward till the goal ye win.
> God guide ye, God guard ye on your way,
> Young pilgrim warriors who set forth this day."

Oh, what a solemn truth is this, "A sacred burden is the life ye bear." Life is not a toy given to amuse us. It is not a treasure to be spent in self-gratification; it is a burden to be borne solemnly and steadfastly. If this is a truth applicable to all humanity, how fearfully true it is when applied to the young pilgrim in the land of medicine. It insists, and insists truly, that, as human beings, we are responsible to our Creator for the way in which we utilise this privilege. "Our life is a shadow, and it soon passeth away." To prolong this short life is the object of the science which you have come here this day to study. The Creator has, to a certain extent, permitted us to hold in our hands the cords of life and death, to loose or bind. We cannot restore life as the first and great Physician did, but we are endowed under Divine Providence with the God-like power of preserving it. Well might the greatest of modern poets say:—

> "Oh, God, it is a fearful thing,
> To see the human soul take wing,
> In any shape, in any mode,
> I have seen rushing forth in blood.
>
> "I have seen it on the breaking ocean,
> Strive with a swoll'n convulsive motion;
> I have seen it on the ghastly head
> Of sin, delirious with its dread."

No one who has witnessed death will not acknowledge the truth of this vivid picture, and no medical man can deny that the pain of such a scene is fearfully heightened if he is conscious that that flight has been caused by his ignorance or neglect, and if he is compelled to exclaim inwardly in the agony of his soul, "Oh! if I had only done my duty when I was a student, this death might have been averted." Do not think, my young friends, that this picture is overdrawn, or too highly coloured. Every conscientious medical man who has arrived at time of life, will allow the truth of it, and happy is he who can say when he closes the eye of his patient, "I have done my duty, and used all those means which the science of our profession, to the best of my belief, has accorded to us." We are all fallible, and the best of us are poor erring mortals; but some do their work as students, and we are all students, or ought to be, earnestly, zealously, and truthfully. Let us, then, consider this responsibility, and the way we are most likely to be able to perform these duties, in accordance with our high aspirations. Again, I must repeat that the man who practises the profession of medicine and surgery honestly and skilfully is a noble being. The object of our meeting to-day is to encourage the young student to devote himself heart and soul to this God-like profession. When we first commence our studies, we are, I fear, most of us, thoughtless, giddy, self-indulgent creatures. When we conclude our studies at the hospital, and launch our bark upon the troubled sea of actual professional life, we ought to be serious, thoughtful, and instructed men. A few short years ought to see this change in you. In these few short years how is it to be accomplished? The lecturer then proceeded to point out the subjects to be learnt by the student, and the best mode of attaining to a knowledge of them. After enumerating the special advantages offered by St. Thomas's as a medical school, he concluded with the following interesting particulars in reference to St. Thomas's:—The institution which gave rise to St. Thomas's Hospital was founded 700 years ago by St. Mary Overie as an eleemosynary establishment. She was the daughter of a man who made a fortune by ferrying pilgrims from and to Canterbury, and others across the Thames. It was, in the first instance, a religious convent, called after her own name. The surname Over-rie is supposed to signify over the river, and, like that of Smith or Turner, from the employment of the individual. This convent was converted into a college of priests by a noble lady of the name of Swithin. To these priestly fathers our ancestors were indebted for the construction of London Bridge. After continuing for above a century, the Priory was burnt down in 1212, and the building they erected to supply its place temporarily while it was rebuilt stood where the old St. Thomas's Hospital did before it was destroyed by the Charing-cross Railway. It was afterwards used as an almonry for "indigent children and necessitous proselytes," and dedicated to St. Thomas á Becket. In the 15th century St. Thomas's Hospital was munificently supported by the Lord Mayor and Sheriffs of London, an example which has been followed in late times. On the 15th of July, 1536, it was claimed as Church property and surrendered to Henry VIII., who intended re-endowing it for the reception of lame, wounded, and diseased soldiers, but his health interfering with this plan, the citizens of London, to their honour be it told, revived the benevolent design, and, with the sanction of Edward VI., formed a board of inquiry as to the best mode of relieving the misery of their more unfortunate brethren. The result as regards the foundation of St. Thomas's was, that they purchased of Edward VI. the manor of Southwark, and the worthy citizens in 1551 at the expense of £1000 repaired and enlarged the hospital for the reception of 300 patients. The thousands of pounds which private charity thus expended and is now expending on the institution, and the thousands more which have been paid to support with food and bedding its unfortunate inmates, would have been of comparatively little service if men had not been found to study medicine and dispense the healing art. The charity would have remained as in the days of St. Mary Overie, an almshouse, not an hospital. Yes, gentlemen, it is—I say it proudly—the noble profession, which many of you are this day about to enter, that gives character to this institution. Before the existence of medicine as a science, St. Thomas's Hospital was in being, but it was only as a resting place for pilgrims and a place of refuge for the destitute. Need I say that such a profession is a glorious profession? Need I say that to rank as one of its members is ennobling; and that to achieve high honour in it is an ambition worthy of a Christian, and next to our eternal welfare, is worthy of all exertion? I cannot conclude this imperfect introductory address without saying a few words regarding the future of St. Thomas's. Behind me you see a drawing of the building of St. Thomas's Hospital as it is to be. You cannot fail to observe its noble elevation. Its internal arrangements are as perfect as the ingenuity of collective wisdom can make it. The contract for the superstructure has been let, and it is provided in the contract that the two pavilions next the centre, with the necessary offices and out-patients' departments, the centre block containing a chapel and resident medical officer's apartments, and the school buildings, are to be completed by Michaelmas, 1869, and the remainder by Lady-day, 1870. I feel, therefore, confident, considering the energy of our excellent treasurer, the zeal and ability of our architect, and the good faith of our contractor, that the introductory lecture for the session of 1869 will be delivered in our new hospital at Stangate. I must now conclude, as is usual with all banquets, intellectual or otherwise, with a few words regarding the ladies. I have pointed out that all the money spent in charity would have been useless if men had not been found to study medicine and minister the healing art. With almost equal truth might I say that not only would the hospital be useless, but the skill of the physician and surgeon also, if good earnest

women had not been found to aid us in our ministration. The hospital has long enjoyed the earnest, honest, and judicious service of a lady of whom it is impossible to speak too highly —I mean Mrs. Wardroper. The institution for training nurses by means of the funds of the Nightingale testimonial has not merely materially improved the system of nursing in the hospital, but it has been of infinite service to suffering humanity by sending forth into the world a phalanx of nurses such as have never issued from any public institution before. The very mention of the Nightingale Fund reminds me of Mr. Whitfield's services in reference to its management, and the zealous interest he has for years shown in all the details of our school. It must not, however, be supposed that we are without good nurses previous to the advent of Mrs. Wardroper or the training of the Nightingale nurses. Our head nurses, or sisters, as we still, I rejoice to say, call them, were women whose conduct was above all praise, and, in one especial instance, whose knowledge of our profession was perfectly marvellous. I allude to Mrs. Roberts, who went out to the Crimea with Miss Nightingale. Another of this noble band has lately been taken from us, poor Sister Abrahams; but thank God we have at least still one left of that glorious old school, I mean the present Sister Accident. Now, farewell, but before we part, let me again insist that the whole truth is, that if you wish to attain that excellence which I will give you all the credit of wishing to attain, you must make the dissector's-room, the lecturing theatre, the chemical laboratory, and the wards of the hospital your dwelling-place. Works on anatomy, physiology, chemistry, medicine, and surgery should be your bosom friends, and the noble profession of medicine in its most extended meaning the only goddess of your idolatry.

ST. BARTHOLOMEW'S HOSPITAL.

ABSTRACT OF INTRODUCTORY ADDRESS.

By Dr. ODLING, F.R.S.

THE lecturer adverted, in the first instance, to the beneficent character of medical art, and to the duty of pursuing the profession of medicine in a spirit alike of high-mindedness, and of philantrophy. As a matter of right feeling the relief of human suffering must ever be an object of interest to those whom he was addressing, and the interest they took in that object for its own sake would react beneficially upon themselves by increasing their ability to relieve. For, although success in medicine as in any other department in life might be obtained by well directed efforts, undertaken merely for the sake of the success, a yet higher success was obtainable through the influence of a higher motive. It was the beneficence of the profession that constituted its highest title to respect, and blessings even more than fees must be appreciated as its reward. When speaking of the spirit of kindness, by which every physician should be animated, the lecturer took occasion to pass a warm euloguim upon the late Dr. Jeaffreson, whose premature death from typhus fever rather less than a twelvemonth ago had caused such general regret not only at St. Bartholomew's, but among the profession and society at large. He went on to observe that, next to the desire of doing good was the power of effecting it, and to the acquisition of this power their highest energies should be devoted. To possess the power of so directing the forces of nature as to cure disease, relieve suffering, and prolong life, must be the goal of their ambition, and the consciousness of having this power their chiefest satisfaction and happiness. This power was indeed a reality, though of less extent than might often be felt as desirable; for at some time or other all men must die, and the majority must die upon a bed of sickness, notwithstanding the skill of the physicians. But by far the greater number of the diseases, the illnesses and the sufferings which all more or less experienced did not necessarily have a fatal termination; and they would find that the extent, the duration, the intensity, the consequences, and even the fatality of these cases were large, dependent upon the treatment resorted to. The power of the physician was not indeed omnipotent, but it was nevertheless real in its character, considerable in its extent, and well-founded in its operations. It was hardly to be expected that the public at large should estimate thoroughly the strength of the medical position, or the character of medical work; although he thought they ought to distinguish more clearly than they sometimes did between that which is reasonable in medicine, and that which is essentially unreasonable, as having no analogy with anything else in nature. The practice of medicine was founded upon a knowledge of the human body, and of the diseases to which it was subjected. Accordingly, the treatment of disease did not depend upon any specific system of cure, for there existed no such system, but upon a familiarity with, and understanding of disease itself, and of the manner in which it is influenced by remedial measures. In speaking of the effects of remedies, he did not limit himself to the effects of medicines. These formed a valuable, but not, he thought, the most valuable portion of their medical anatomy. By quality of diet, and its mode of administration by extent of depletion or support, by bodily rest or exercise, by fixity or variety of position, by mental quiet or exercitation, by maintenance of warmth or application of cold, by change of climate, and other means, very much might be effected in judicious hands without any assistance whatever from medicines properly so-called. Nevertheless, the right use of medicines as auxiliaries in the treatment of disease would very properly form an important branch of their present study and of their future practice.

Now-a-days, there was a very proper reaction against the extravagant belief in the curative powers, and the excessive employment, of medicines which formerly prevailed. It was now well understood that few, if any, diseases were, strictly speaking, curable by medicine. What diseases at any rate which got cured at all, cured themselves in the same sense that a broken leg repaired itself. But the conditions affecting cure might be as effectually promoted or impeded by medicinal treatment in the one case, as by mechanical treatment in the other. Since the object of the doctors' existence was not knowledge, but cure, the most special of all the aids to cure was deserving of special systematic study, of a more systematic study than was, he considered, habitually accorded to it. He rather thought that the impossibility at present of understanding the mode of action of medicines had interfered unwarrantably with the study of their kind of action; while an ignorance of the conditions of their action had led to an irrational belief in the radical uncertainty of their action. In their study of therapeutics, however, it should be their encouragement to know that an appearance of uncertainty, irregularity, and inconsequence, pertained to the early investigation of all natural phenomena; but that it was only an appearance, which, with time, and thought, and work, had yielded, or would yield, to a constantly increasing knowledge. A distinction he said was sometimes drawn between the science and the art of medicine. Mentally they might be associated, practically, they were one and indivisible. Science was knowing, art was doing or practising; but it was quite impossible to know the science without practising the art, or to practise the art without learning the science of medicine. Which, in the same manner, an illogical contrast was sometimes made between the scientific and the practical man. Of course the scientific man, though possessing a knowledge of all the sciences under the sun except the science of medicine, wanting that knowledge, could never be a physician; and that knowledge, like any other branch of natural history knowledge, was only to be acquired by working personally at the subject of such knowledge; in other words, by attending to the practice of medicine and the investigation of disease itself. But to understand disease aright, as to understand every other phenomena of nature, they must not only work at disease, but must lay a good foundation for their work by the acquisition of extensive preliminary knowledge. It was most unfortunate that, from the defective state of physical education at most schools and colleges, much of the preliminary knowledge which they ought to bring with them, they would have to acquire at the hospital, whereby valuable time, which, in that home of disease, might be advantageously devoted to the work of their profession, would be seriously encroached upon. But they must make the best of circumstances as they existed. The knowledge, both preliminary and professional they would have to acquire during their few years of hospital study was enormous in its amount; and in its kind, not only most various, but very different from any to which they had, he feared, previously devoted themselves. It was lamentable that this should be the case, and reflected seriously upon those on whom the charge of general education in this country mainly depended, both as regards the attainment of real knowledge, however, and the training of their powers of observation, their judgments, and their understandings, he believed that many of them would gain more during their first year of hospital study than during the last half-dozen years of their previous lives. But to achieve this gain they must work laboriously and continuously. The period of their sojourn at the hospital was the seed-time of their lives, with a view to the

harvest of ultimate success in life, if for no nobler object, for the sake of their own future happiness and self-respect, still more for the welfare of those committed to their charge, they must take care that this time was not mis-spent or frittered away. As an illustration that even men of the most extraordinary mental powers could not dispense with work he referred them to the career of the late consulting surgeon to the hospital, Sir William Lawrence, concerning whom, in his student days, it was observed by Sir Benjamin Brodie some fifty years afterwards, "I never knew any one who had a greater capacity of learning than he had, or more industry." The lecturer then read a very discriminating and eloquent memoir of the late Sir William Lawrence, with which he had been furnished by Mr. Savory, and which concluded in the following terms :—

"The intellect of Lawrence was characterized by a rarely equable and complete adjustment of parts. There appeared to be no deficiency or excess. All the qualities of his mind, like his frame, were in such perfect proportion, that you were never struck by anything in particular, but charmed with the whole effect. There was nothing monstrous or eccentric about him. In a word, it might be said of him that the whole man, mind and body, was in perfect taste ; and, as is only with the greatest, that the better he was understood the more he was admired. Of men of the stamp of Lawrence, no adequate conception can be formed from their books. He was so much greater in himself than in what he has written, that it can never be said of him as he said of Hunter, that he "lives again in the ample stores of knowledge he has left behind him.

"But his name and memory, and the tradition of his work, Lawrence has left—a rare legacy—to the profession to which he devoted his life, and lived so eminently to adorn. His example will survive and influence surgery long after those have passed away who can remember the fine old gentleman as he went round the wards of St. Bartholomew's. And as the great surgeon of the hospital, one may borrow for him his own noble image of Hunter, and say, 'here he reigns alone like the Jupiter of the heathen mythology.'"

Cui nullum vigit simile aut secundum.

GUY'S HOSPITAL.

ABSTRACT OF INTRODUCTORY ADDRESS.

By ARTHUR E. DURHAM.

MR. DURHAM on the part of his colleagues and himself, warmly welcomed all present to Guy's Hospital, a place intimately associated with the history, and crowded with memories of good work done in the past—abounding in evidences of good work going on in the present—full of promise of good work to be done in the future.

Mr. Durham then proceeded to give an outline of the History of the Hospital, prefacing this by some account of the life of Thomas Guy, "at whose sole cost and charge" the Hospital was founded. He eulogised the character of Guy, and defended his memory from the ill-founded but oft-repeated charges made against him. Guy was neither "harshly usurious" in getting, nor "miserly" in keeping his money. The stories that would make him so are apocryphal and easily shewn to be inconsistent with facts. Maitland in 1736 truthfully summed up his character thus,—"As he was a man of unbounded charity and universal benevolence, so was he likewise a great patron of liberty, and the rights of his fellow-subjects, which to his great honour he strenuously asserted in divers Parliaments whereof he was a member." The large accession of fortune which came to Guy in his later years, must not be regarded as the result of "lucky stock-jobbing," but rather as the natural reward in this world of that industry, economy, and shrewdness, which made him the successful man of business. And so the building and endowing of this Hospital must be regarded not as the death-bed apology of a miser for his ill-gotten gains, but rather as the worthy crowning work of a life of far-seeing, ever-active benevolence.

Mr. Durham next spoke of William Hunt, who after Guy was the greatest pecuniary benefactor of the Hospital. "Guy's" Hospital was founded and endowed for the reception of at least four hundred patients. Hunt's bequest of about £200,000 was left on condition that within three years of the testator's death, accommodation should be provided for at least one hundred more. How thoroughly well the benevolent wishes of Guy and Hunt have been *more* than carried out is patent to the world. That they have been so carried out is due to the admirable general management of the hospital and its estates. How much is owing in this respect to the late Treasurer, Mr. Harrison, can never be fully estimated. It is impossible to speak of the history of this hospital without offering a tribute of grateful praise to the memory of Mr. Harrison.

After alluding to "The Lamentable State of Physic" at the time the hospital was founded, and during its early years, and illustrating by anecdotes the differences between the "then" and "now" in the medical world as well as in hospital management, Mr. Durham proceeded to speak of the rise and development of the present system of medical education in London. He rapidly sketched the history of the great school attached to Guy's Hospital, and referred to the distinguished men of the past, whose talents, industry, and devotion had contributed so largely to raise the school to its present state of efficiency and high repute. He cordially acknowledged the interest manifested by the hospital authorities in the welfare of the school, especially expressing obligation to the Treasurer. At the same time he emphatically pointed out the great services rendered by the school to the hospital. Not only does the school directly assist, to a very great extent, in carrying out the especial object of the hospital—viz., the relief of those sick and suffering, and needy, for whom accommodation or attendance is here provided, but further the school indirectly, but no less certainly, affords the means of extending the benefits of the hospital to an endless number of sufferers in every rank of life, who never could reach, or never would seek its gates.

Addressing then, the students, Mr. Durham told them they would enjoy at Guy's Hospital opportunities of studying the several branches of their profession, which might be said to be unsurpassed and (one exception being made) almost unrivalled in London. This he said in no spirit of vain-boasting, but rather in all seriousness, and in order that by representing to them the greatness of their opportunities he might impress them with the greatness of their responsibilities.

The size of the hospital, the number of patients yearly admitted, and the almost endless varieties in the forms and phases of diseases presented for study ; the enormous number of out-patients; the extent and efficiency of the various so-called special departments (as those for diseases of the eye, ear, skin, &c.); the peculiar merits of the museum; the large amount of material accumulated for the illustration of the lectures, &c., these constitute the chief advantages offered at Guy's. The freedom allowed, and the facilities and encouragement given to the students to avail themselves of these advantages, are no less characteristic features of this hospital.

There cannot be a greater mistake in medical education than to suppose that a man can learn his profession at a small hospital as thoroughly and well as at a large one. To say that one case, well studied, is worth twenty casually looked at, is a specious piece of special pleading. The man who looks, and looks well, at nineteen additional cases of any disease, will gain far greater practical advantages from the careful and thorough study of his one case than the man whose opportunities have limited him to the study of one only. He will learn that no two cases are ever exactly alike, and that treatment, management, and prognosis, must be modified according to the circumstances and conditions of each particular case. The advantages which a large hospital offers to the student of medicine can hardly be over-estimated.

Mr. Durham then went on to advise the students as to how they might best avail themselves of their opportunities. He said, "I take it for granted you wish to be scientific, and also successful practitioners of your profession. Then I would say what you have to do here is this : *First*, Learn to observe correctly, to examine carefully, to investigate thoroughly. *Secondly*. Learn to interpret aright, and to draw correct conclusions from your observations, and the results of your examinations and investigations. *Thirdly*. Learn to act upon your conclusions to practical advantage. Before you can advance to any good purpose you must learn to observe. Men do not become good observers by intuition but by hard labour. Take the history of science. What a medley of mistakes and blunders! What a stumbling towards the light! And why? Because men would not observe, would not examine, would not investigate, but would explain, and, consequently they were forced to draw their conclusions from the fictions of their own fancies rather than from the phenomena of nature. Again, a large proportion of the medical errors—'The Fallacies of the Faculty'—that have been promulgated from time to time may be considered as just so many

terribly mischievous expressions of human ignorance, indolence, and vanity—instances in which fancy has taken the place of observation, and vain speculation has usurped the office of sound reason."

Mr. Durham then drew attention to various medical theories and hypotheses, recently brought forward, as illustrations of the results of want of proper observation, hastily generalization and bad reasoning. He warned students in learning to observe to beware of the various "Idols" spoken of by Lord Bacon as besetting the human mind. The first book of the Novum Organum should be carefully read by every student. The history of medicine—nay, the present state of Medical Science—affords plentiful illustrations of the several species of *idols*. The various errors to which specialists in study as well as specialists in practice are liable, were next spoken of, and examples given. The fallacious conclusions that have too often been derived from loosely collected statistics were then adverted to, and comments made upon the use and misuse of statistics in Medical Science.

Students in the wards must learn to use their own eyes, ears, and fingers in the examination and investigation of the cases before them. They must learn also to avail themselves of those aids to the senses now in every-day use—the stethoscope, opthalmoscope, &c.

Lastly, Mr. Durham made a few remarks upon the general state of the profession. "Perhaps," he said, "there never was a time when a larger number of able men were working honestly, and working well, in the right direction. It is impossible not to be hopeful for the future; and yet, in many respects, the high standing and dignity of the profession are not upheld as they ought to be. There is too much quackery—too much pandering to the ignorant—too much puffing, direct and indirect—too great a readiness to give opinions in courts of law and elsewhere in accordance with the wishes of those who pay, instead of in accordance with the facts—too great readiness to accept the position of the advocate instead of taking that of the judge! Too many books teem from the medical press, written, not because the authors have anything to teach, but because they want practice! Too many discussions are conducted with an acrimonious personality, alike disgraceful to the individual, and injurious to his cause. Such and such like faults and flaws were rife in our profession in days bygone. It is sad to think they should still prevail to the extent they unquestionably do. Such faults and flaws within the profession are incomparably more lamentable, and do infinitely more harm, than all the quackery without. The remedy lies with the individual members of the profession. Each one must look to himself, and see that he ever conducts himself in a manner worthy his high calling."

THE MIDDLESEX HOSPITAL.

ABSTRACT OF INAUGURAL ADDRESS,

By Dr. COBBOLD, F.R.S.

In the course of his address, the author made the following very interesting and appropriate remarks on the mental and moral culture of Students,—Let us now, said he, turn our thoughts to the Hospital. That is the place for yet higher teachings than the lecture-room. I speak no more than simple truth when I aver that I never pass through the open and airy corridors of this Institution without arising sentiment akin to that of reverence. No one will charge me with the folly of possessing a superstitious veneration for buildings usually deemed sacred; nevertheless, I cannot shake off that semi-religious respect which all rightly constituted minds entertain for the dwellings of the sick. I know you share this feeling with me. It is not to be expected, of course, that the associations of the board and waiting rooms should awaken this regard; but the moment you enter the wards let your attitude bespeak the prevailing elements of your better nature. Be not unwilling to make even apparently trifling concessions in the interest of the afflicted. The lesser actions of a loving heart seldom escape the observation of the sorrow-stricken child of misfortune: and never can they display themselves with greater power than when reflected in the manly bearing, open countenance, quiet manner, and kind words of the surgeon or physician. Think not then slightingly of these little attentions. The firm and easy tread; the absence of all unnecessary haste; an open deportment, and the uncovered head. All these indications, and many more besides, descending even to the consideration of a flower placed on the window-sill; all these, I repeat, are material benefits of no mean import, and they are such as were long ago figuratively and unerringly described as "cups of cold water, which shall in no-wise lose their reward."

Again, at the risk of uttering some sentiments which have had their counterpart in the eminently practical discourses of my predecessors, let me press upon your notice another essential point. It has reference to work done in the wards. If, in purely medical studies, you must have your "hobby," I advise you to concentrate your best energies on the subject-matter conveyed by clinical teaching. I do not urge this from the lower points of view which commonly—and very properly, if only in a subsidiary sense—animate the student; but I thrust it forward from incentives that cannot be too strongly enforced. Kindly receive an illustration of my meaning. In the course of your professional duties, cases of comparative rarity and difficulty will ever and anon turn up. Not improbably they may cause you some anxiety. Here it is that your highest professional powers are put to the test, whilst the qualities of discretion and self-reliance are also well brought out. But of what value, I ask, are these last-named principles if their exhibition is not guided by antecedent practical experiences gained at the bedside? Why, even the bold, unblushing quack is self-reliant; and that, too, without ever having received so much as a homœopathic particle of hospital instruction. Such a creature, no doubt, may desire to do his best. His self-assertiveness may even impart confidence to the friends of the sick. The patient may perish, palpably from his want of knowledge of the proper mode of treatment. Nay, more; the deceased may be buried, and the notoriously ignorant man shall be thanked and paid for the skill which he is honestly supposed to have exercised. What a chastening estimate do such instances afford us of the amount of discernment frequently exercised by our so-called intelligent public. To the highly-gifted physician such exhibitions are humiliating in the extreme. In such a case as that I have just described the ignorant and unlawful practitioner finally goes his way without one solitary pang. He is even gratified and stimulated to further wrong-doing. But it would not be thus with you, gentlemen. Your honourable feelings and educational antecedents, whatever their deficiencies, have, at least, ensured a healthier tone. Hereafter, if you should find that, by your neglect of clinical instruction, you have voluntarily deprived yourselves of powers whose exercise might have saved the life of a fellow-creature, you would, I am sure, in calm moments silently rebuke yourselves. You can never tell what important issues may depend upon a single day's absence from the wards; and, since the time of your hospital studentship is short, I ask you, in no unfriendly spirit, to make the most of its teachings. What goes on there affords a lesson for the heart as well as head. In after life, it is true, you may meet with cases altogether unlike those which have occurred within the limits of your hospital experiences; but then, should they unhappily go wrong, you will have no reason whatever to chide yourselves. I, for one, have great faith in the joyous look and the elastic tread of a conscientious man. Depend upon it, the gloomy countenance of a medical practitioner is not a desirable object for any one to contemplate; yet, even that were better than the sight of a brazen-faced, fault-finding, self-satisfied, empty-headed, swaggering, ignorant creature of doubtful qualification.

Finally, gentlemen, if the ordinary necessities of circumstance, combined with a fair sense of honour and usefulness, have induced you to embark in the medical profession, by all means adhere to your choice. The sources of pleasure and satisfaction to be derived from moderate success in this regard are by no means scanty. Their quality is of the highest order, and not to be estimated merely by ledger balances in your favour. The choicest joys that you will experience in the exercise of your vocation are such as spring from a sense of actual good done, intensified betimes by the grateful looks of those you have benefited. These rewards will stand by you to the end of the chapter; and, probably, as the last leaves of life's volume are being overturned, some thank-utterances of the past will relieve your then present sorrow. It may be, however, at such an hour, that the withering influences of time shall have weakened your powers of reflection; yet, at all events, the record of usefulness will be none the less secure, and it will long outlive the ephemeral repute of the mere successful man of business. It may be a fine thing to accumulate wealth; but the reputation of a Crœsus will not compare with that of the illustrious Jenner. If the men of commerce can triumphantly point to splendid instances of good accomplished by the large-hearted gifts of a few of their number; it must also be borne in mind that recent commercial transactions have led to the ruin and misery of thousands. All of us are cheered by the

generous performances of a Burdett Coutts or of a George Peabody; yet we are none the less assured of the worth of less conspicuous deeds of charity. Any one contributing, by purse or otherwise, to the support of our large metropolitan hospitals is entitled to a share of the esteem and affection of all great and good people. It may not be yours to contribute largely to the support of hospital or to the advance of medical science; but, come what may, let the unpausing eloquence of a life well spent redound to the credit of those who watched over your early years; let it testify to the courage and manliness of character acquired at public schools; let it reflect something of the mind and knowledge of the college teachers and hospital staff who have instructed you; let it promote the honour of the profession which has sustained you; let it afford evidence as to your own individual happiness; and, lastly, let it, in some sense, bespeak the goodness and praise of the common Author of us all.

QUEEN'S COLLEGE, BIRMINGHAM.

ABSTRACT OF INTRODUCTORY ADDRESS.

By OLIVER PEMBERTON,

PROFESSOR OF SURGERY IN THE COLLEGE, AND SURGEON TO THE GENERAL HOSPITAL.

THE lecturer commenced by referring to the fact that nearly forty years had elapsed since the first introductory address was delivered on the occasion of the opening of the first session of the first School of Medicine ever established in Birmingham, and that the founder of that school was Mr. William Sands Cox.

The best evidence of the character of the education afforded, was the eminent position occupied by those who had been students during that period. Some of the highest honours which the profession or science could bestow, had been conferred on Members of the Birmingham Royal School of Medicine and Surgery, and the Queen's College, and there was scarcely an appointment of any of the great Medical Institutions of either this or the surrounding counties, that was not held by gentlemen who had been educated by Mr. Cox, and those who were associated with him in what might be termed the first era of these institutions.

Within a few weeks, the second era would be inaugurated under the provisions contained in the new Act, to which Her Majesty had given the royal assent on the 12th of last August.

It might confidently be expected from the advantages which the College possessed as a chartered institution, that ere long its Professors would represent the greater part, if not the whole of the Medical Institutions connected with Birmingham, so as to ensure the permanent prosperity of a great Medical School for the Midland district, that should stand independent of the chances of either personal or professional caprice.

After some friendly advice to the new students, especially bearing on the necessity of their encouraging habits of self-reliance and methodical arrangement, and dwelling strongly on the immense increase in their influence that would result from the exhibition of gentle conduct and demeanour in the hospital wards in the presence of the sick, the lecturer proceeded to the main subject of the discourse, "Modern Surgery considered as a Science and Practical Art."

The foundations of the Science of Surgery were essentially anatomy, physiology, and chemistry, of which physiology, in his judgment, exercised the greatest influence. What physiology can teach was then pointed out, and especially the mode in which it essentially formed the basis of the "Science of Surgery." The distinctions between surgery as a science and a practical art, were next described, and the necessity insisted on of the science and art being ever undivided in practice.

Passing on, the chief aims of surgery were considered, their being the prevention of disease, its removal, the correction of deformities, and the repair of injuries.

In regard to the first of these, illustrations were deduced from the treatment of scrofulous diseases of joints, and from the numerous cases of "stone" that occurred, especially amongst children in this locality.

In the removal of disease, nothing added such scientific lustre to the surgeon's reputation, as the truthfulness with which his promises were realized. "To be able to say where a cure could be effected—when not." This situation was established mainly by the system of modern scientific investigation, aided by the study of structural and morbid anatomy, and its value has been borne witness to by no class of cases so markedly as that of malignant or cancerous diseases.

The tendency of modern surgery was to be "conservative," that is, to endeavour to save as much as possible when using the knife. "Genius" in surgery had brought this to bear mainly by its exercise throughout the teachings, and by the examples of Professor Syme.

In repairing injuries nature, in many instances, only required that the best possible conditions should be arranged for her by sciences, the true restoration she could herself carry out; prompt interference was, however, at times absolutely necessary, as in the instance of injuries of the head affecting the brain.

The lecturer affirmed that the most elementary surgery demanded the study of science, the phenomena of heat and cold, of position, rest, and motion, food and starvation, were constantly exemplified, either as manifestations of diseased action, or as agents for the furtherance of cure. No better allusion, relating to one of these (*i.e.* "cold") could present itself than by referring to the application of the ether spray for its production by Dr. Richardson.

Great stress was laid on the necessity of attention on the part of students and nurses to position, both in their dealings with diseases and injuries, than which nothing was more calculated to relieve pain and promote recovery.

The last, but probably most important subject dwelt on in this part of the lecture, was that of "rest"; the "physiological rest" that John Hilton had shewn ought to be the guiding principle of the treatment of so many surgical diseases and injuries. After expressing the opinion that Mr. Hilton's lectures on this subject were amongst the most scientific and completely truthful ones that had been given to the profession since the days of Hunter—illustrations were offered of the curative action of rest in the treatment of chronic ulcers, of penetrating wounds in the abdomen, and of strangulated hernia; and the paramount importance made clear of a close union of the qualifications belonging both to the physician and surgeon, in the treatment of numerous surgical cases, of which injuries and diseases of the intestines were a type.

Amongst the great aids to the advancement of modern surgery, must be numbered the improvement in the means of diagnosis, by the discovery and application of the ophthalmoscope, the laryngoscope, and the endoscope—instruments contrived for the purpose of inspecting textures and cavities, whose structure and condition, under circumstances of injury or disease, it was previously impossible to ascertain. In conclusion, Professor Pemberton directed the attention of his audience to the results of surgery, by a reference to the absolute success that attended the performance of the great operations, and pointed out the methods by which this could be realised in the highest degree. Ordinary statistics were derived from a great variety of sources, and were consequently wholly inadequate to show the results obtainable at the hands of the most skilled operators, under the most favourable auspices.

Many circumstances influenced the success of any given operation, not the least, amongst others which were particularly enumerated, was the individual skill and judgment brought to bear by the operator himself. The results of cases treated under the condition detailed, displayed truly the highest amount of success obtainable by the art of surgery in the present day. In proof, the skill of Martineau in operating for stone was adduced, who had attained a success in eighty-four private cases, in the proportion of but one death in forty-two, whilst the proportion (being taken with other surgeons under similar circumstances) yielded a result of one in twenty-one. Most fairly to be contrasted with Martineau's was the success attained by Mr. Crompton, the senior surgeon of the General Hospital in this town, who, in sixty cases, had realised but two deaths; and what was, perhaps, even more satisfactory, as pointing out the care and consideration bestowed on patients in public institutions, not one had occurred amongst those that were treated within the hospital. The special considerations of personal skill and judgment were further manifest in a remarkable degree in the operation for ovariotomy, the general statistics of which exhibited a recovery of but 50 per cent., whilst individual operations attained a proportion of 68·77, and even 80 per cent.

No more brilliant result had attended the progress of modern surgery than the perfecting this great proceeding, due mainly to the courage of a few enterprising men, and to none more than to Mr. John Clay, one of the Professors of Midwifery in this College, to whom the Royal College of Surgeons of England had this year awarded the Jacksonian prize, in testimony of the merit of his essay on Ovarian disease.

The aim, then, of those who become surgeons must not be to

rest satisfied with ordinary results, but by the application of science, and by the cultivation of personal skill, to compel the attendants of a maximum of success in their undertakings. These were amongst the chief prospects held out by the practice of the science and art of surgery, prospects, the truth of which students must investigate for themselves. Should they be convinced that they were faithfully portrayed, their future happiness and prosperity would be secured by steadily pursuing the paths which lead to them.

NEWCASTLE-UPON-TYNE COLLEGE OF MEDICINE.

ABSTRACT OF INTRODUCTORY ADDRESS.

By Dr. HUMBLE.

AFTER commenting on the subject of medical education, and on the means to be adopted in order to acquire professional knowledge, Dr. Humble concluded his lecture as follows:—In commencing the study of Medicine you must make up your minds to consider your Profession as your principal object, and you ought to entertain a sincere liking for it. There is much to depress, and much anxiety to undergo, as well as great rewards to obtain, and the studies necessary for it are not such as you can take up and lay down at pleasure, or profitably interweave with other pursuits. Everything else must be secondary to it, and therefore all other pursuits in which you engage should be more or less accessory to it. And you must not expect that when your examinations are over, and you are admitted into the Profession with full authority to practise it, that your studies are at an end, for until the close of your life your search after knowledge must continue unabated. Your education, in fact, can never be finished. Do not, therefore, suppose that there is a certain amount of knowledge which you have only to acquire in order to be prepared for all emergencies, and to be free to direct your thoughts to other studies. The study of medicine is that of a life-time, and there is no period at which you ought to relax your attention or lessen your devotion to it.

In prosecuting your studies you will need to exercise patience, for you will doubtless at first meet with disappointments and discouragements, and your most careful investigations may seem to you embarrassing and bewildering, without leading to any useful or profitable result. If you keep steadily on your way, however, you will find the difficulties disappear, and patience will prove its own reward. Acquire all the knowledge you can, but, above all things, try to get wisdom. I mean wisdom as a thing distinct from knowledge, but not opposed to it—a most essential element in the character of every medical man. In the words of the poet Cowper—

> "Knowledge and wisdom, far from being one,
> Have oft-times no connection. Knowledge dwells
> In heads replete with thoughts of other men.
> Wisdom in minds attentive to their own.
> Knowledge, a rude unprofitable mass,
> The mere materials with which wisdom builds,
> 'Till smooth'd, and squared, and fitted to its place,
> Does but encumber whom it seems to enrich.
> Knowledge is proud that he has learned so much.
> Wisdom is humble that he knows no more."

It remains for me to wish you, in the name of the College, every success in the study and future practice of your Profession. Go forward, then, to your duties, and remember that medicine does not demand a greater capacity than other Professions. What it requires is a certain amount of natural acuteness, commonsense, patient observation, and above all unwearied industry. Let no doubts or difficulties deter you. Be not, as beginners, ashamed of your ignorance; but of any unwillingness to acquire knowledge when the opportunity offers you should indeed be ashamed. Upon your own industry must depend the possession of the most exquisite pleasure this world can afford—for it will be to you—that in moments of suffering, of sorrow, and of distress, the sick man will turn his anxious eye, catching from your look hope or despair, and demanding from you all that skill and compassion can bestow. Happy will you be if, relying upon your own power and knowledge, you can stretch out your hand to relieve his pain and to restore to him the blessing of health. Be assured that, followed up in a true Christian spirit of gratitude to God and love towards our fellow-creatures, our noble Profession is in usefulness and dignity second only to that of the servants of the Church, and, like it, when faithfully practised, will secure its own abundant reward.

LEEDS SCHOOL OF MEDICINE.

ABSTRACT OF INTRODUCTORY ADDRESS.

By T. PRIDGIN TEALE, Jun., M.A.Oxon., F.R.C.S.

IN the course of his address, the lecturer dwelt particularly on the changes that for many years had been gradually going on in medical education; the apprenticeship, with its combined abuses and advantages becoming obsolete, its abuses, for the most part swept away, whilst its advantages were being replaced by the improvements in the public teaching at our medical schools and hospitals. The shortcomings, he said, of formal professional lectures had given rise to the system of grinding—a form of private teaching which was but the expression of a growing want, and also the evidence of a deficiency in the medical schools, and which led to the growth of a more personal, or rather to the tutorial mode of education. This personal or tutorial training, which was being worked out in almost every department of our schools, was now rendered a necessity, not only by the improvements that had taken place in the public examinations, but also by the introduction of those physical modes of investigating disease, which substituted, in a great measure, exact observation for mere intelligent conjecture, and gave us the trained eye, the trained ear, the trained touch, where formerly all was little else than clever guesswork.

The modern development of teaching had a deeper meaning than the education of the individual student. It was destined to work a great revolution in medical practice, and to strike at the root of one of the evils we had inherited from the apprenticeship system—the habit of practising by routine instead of by observation—a revolution which would tell most of all upon the science of therapeuties, which had hardly as yet responded to the advance in the sister sciences.

The present age, he remarked, seemed peculiarly fitted for a revision of our therapeutical store. The increasing confidence in the physical modes of exploring the human body rendered us less satisfied to remain in doubt where we could attain certainty. We were fast approaching the time when we should shrink from treating loss of voice without using the laryngoscope, or disease of the brain without exploring the optic nerve with the ophthalmoscope, or disease of the bladder without the aid of the sound or the endoscope.

Thus prepared to demand exactness in observation, there has been vouchsafed to us one of those discoveries which, like chloroform, forms an era in our history, "hypodermic injection." Valuable, however, as it is in its command over pain, it is still more important to the advance of science in the field which it had opened out, not only for testing the value of medicines, but also for searching into the nature of morbid processes themselves. When we see a neuralgia of long standing cured by one injection of morphia, when we see the same remedy *visibly* restoring to health congested vessels of the conjunctiva, reducing unnatural heat, not of the whole body, but of a suffering portion of it, lessening the swelling of an inflamed joint, arresting vomiting dependent upon a lacerated brain or upon peritonitis, or suppressed menstruation, we must feel that we have much to revise and much to learn as to the intimate nature of morbid processes by the light of our new power.

After speaking of the interest that was being awakened in "antiseptic therapeutics" by the discoveries of M. Pasteur, and by the investigations suggested by those discoveries into the power of carbolic acid and sulphuric acid by Professor Lister and Dr. Dewar, the lecturer concluded as follows:—"Let then each and all of us feel that an obligation is laid upon us to investigate anew by the light of modern science, not only the value of remedies, but also the nature of disease. Let us take care that each year adds somewhat to our store of certainties, diminishes our stock of doubts, clears off some particle of rubbish. Let us be determined to add one stone at least to the edifice of medicine, to leave one "footprint on the sands of time."

Medical News.

AT the opening of the Medical School at St. Bartholomew's Hospital last week, the following prizes were distributed:—

Senior Scholarships in Anatomy, Physiology, and Chemistry.—1. J. R. Rouch; 2. A. F. Field. *Junior Scholarships*, 1866.—1. J. R. Rouch; 2. F. de. H. Hall; 3. T. H. Hendley.

Bentley Prize—L. Newton. *Kirkes Medal*—1. L. Newton. 2. W. Squire.

Practical Anatomy, Senior.—*Foster Prize*—T. H. Hindley. 2. E. Groves. 3. E. A. Brickwell. 4. F. J. Glencross. 5. D. Smart. 6. J. T. Hartill. 7. J. R. Rouch. 8. B. S Ringer. 9. C. Bennett. 10. J. G. Williamson. *Wix Prize*—W. D. Butcher. *Hichens Prize*—1. W. D. Butcher. 2. A. F. Field.

Practical Anatomy, Junior.—*Treasurer's Prize*—H. A. Smith. *Examiner's Prize*—C. J. Davis. 3. F. H. Turner; 4. C. F. Gray. E. H. Cooke. C. J. Wharry.

List of entries in the register of the Branch Medical Council (Ireland) for the month of September, 1867:—

Francis Edgeworth Lynch, Drumcondra, County Dubin, Lic. R. Coll. Surg. Irel., 1867; John Roche, Mitchellstown, County Cork, M.D., 1867, and Mastr. Surg., 1867, Qu. Univ., Irel; Geo. Adye Curran, 22, Lower Dominick-street, Dublin, Lic. R. Coll. Surg., Irel., 1867; William Robert Macdermott, Kells, County Meath, M.B., Univ. Dub., 1866, Lic. R. Coll. Surg., Irel., 1866; John Weir, Ballywilley, Kilmore, County Armagh, Lic. K. Q. Coll. Phys., Irel., 1867, Lic. R. Coll. Surg. Irel., 1866; Andrew William McConnell, 29, Carlisle-street, Belfast, Lic., R. Coll. Surg., Edinb., 1867; Robert William Andrew, 5, Homeville, Rathmines, County Dublin, Lic. R. Coll. Surg., Irel., 1866. Lic. 1867, and Lic. Midwif., 1867, K. Q. Coll. Physicians, Irel; Henry Beaumont, 4, Phœnix-terrace, Blackrock, County Dublin, Lic., R. Coll. Surg., Irel., 1866, Lic. 1867, and Lic. Midwif. 1867, K. Q. Coll. Phys., Irel; Samuel Killen, Donaghadee, County Down, Lic., R. Coll, Phys., Edinb., 1866. Lic. R. Coll. Surg., Edinb., 1866; Edward Heyns, Corofin, County Clare, Lic. R. Coll. Surg., Edinb., 1867, Lic. Apoth. Hall, Dub., 1866; James Reid Dickson, 59, Carlisle-street, Belfast, M.D., Qu. Univ., Irel., 1866; Samuel Parke, Gilford, County Down, M.D., Qu. Univ., Irel., 1866, Lic. R. Coll. Surg., Edinb., 1866, Lic. R. Coll. Phys., Edinb., 1866.

ERRATUM.

It is believed that the following were accidently omitted from the last month's list forwarded to the Medical Press and Circular, viz:—

Benjamin Morrow, Downpatrick, Lic. Apoth. Hall, Dub., 1866; Robert Mitchell, Moville, County Donegal, Lic. R. Coll. Surg., Irel., 1866; William Marcus McDermott, Clongee, Foxford, County Mayo, Lic., R. Coll. Surg., Irel., 1867, L.K.Q.C.Phys., Irel., 1867, and Richard Windle, 12, Blair's Hill, Cork, Lic. R. Coll. Phys., Edinb., 1867, Lic. R. Coll. Surg., Edinb., 1867.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Dr. Henry Dick and Mr. Durham will please receive our best thanks.

Mr. M., London.—If possible, next week.

Mr. Doyle.—There is a letter waiting for you at the London Office of this paper.

Mr. H. C. Lea.—Shall be happy to do as you suggest.

Dr. Harvey.—The alteration has been attended to.

S. B.—At present it has not been the cause of any inconvenience.

Mr. Johnson.—Could you send us the list? We might be able to get the signatures.

Births, Marriages, and Deaths.

Announcements are inserted without charge, and must in all cases be authenticated with the signature of the sender.

BIRTH.

Grimshaw.—On the 2nd inst., at 13 Molesworth-street, the wife of Thomas Wrigley Grimshaw, M.D., of a son.

MARRIAGES.

Commins—Scott.—On the 25th ult., at the British Legation, Brussels, Henry Commins, M.R.C.S.E., of Braintree, Essex, to Jeanie, daughter of J. B. Scott, Esq.

Manning—Haynes.—On the 25th ult., at St. James's, Piccadilly, Henry John Manning, M.R.C.S.E., of Laverstock, Salisbury, to Ellen Frances, daughter of J. Haynes, Esq.

Maclean—Mundell.—On the 25th ult., at Edinburgh, by the Rev. Alex. Maclean, D.D., father of the bridegroom, Archibald Maclean, Esq., M.D., Muirkirk, Ayrshire, to Barbara, daughter of the late Walter Mundell, Esq., Inverlawl, Lochbroom, Ross-shire.

DEATHS.

Thompson.—On the 25th ult., at Margate, P. W. Thompson, M.R.C.S.E., aged 45.

Newton.—On the 25th ult., at Alconbury-Hill, Huntingdon, Lancelot Newton, M.R.C.S., L.S.A., aged 50.

Butler.—On the 26th ult., Wm. Butler, M.R.C.S.E., of Chapel-street, Pentonville, aged 41.

Booth.—On the 26th ult., B. W. Booth, M.R.C.S.E., of Swinton, near Manchester, aged 61.

Jackson.—On the 27th ult., Wm. Jackson, F.R.C.S.E., of Sheffield, aged 77.

ROYAL COLLEGE OF SURGEONS IRELAND.

THE ANATOMICAL HALL of the College is open Daily, and the Dissections are superintended by the Professors of Anatomy, assisted by the Demonstrators, at the following special hours:—

10 to 11—Drs. Stoney, Knox, and Roe.
11 to 12—Drs. Stoney, Macalister, and S. Hewitt.
12 to 1—Anatomical Lecture by the Professors.
1 to 2—Drs. Croly, Macalister, and D. B. Hewitt.
2 to 3—Dr. Knox and S. Hewitt.
3 to 4—Drs. Croly and Roe.

QUEEN'S UNIVERSITY IN IRELAND.

QUEEN'S COLLEGE, GALWAY.

SESSION 1867-8.

FACULTY OF MEDICINE.

THE Matriculation Examinations in the Faculty of Medicine will commence on FRIDAY, the 18th of October.

Additional Matriculation Examinations will be held on the 16th of NOVEMBER.

SCHOLARSHIPS AND EXHIBITIONS.

In the Faculty of Medicine eight Junior Scholarships of the value of £25 each are appropriated as follows:—Two Scholarships to Students of the first, second, third, and fourth years respectively.

The Examinations for Scholarships will commence on the 17th of OCTOBER, and be proceeded with as laid down in the Prospectus.

In addition to the Scholarships above mentioned, Prizes will be awarded by each Professor at the close of the Session.

Scholars are exempted from the payment of a moiety of the Class Fees.

Further information may be had on application to the Registrar, from whom copies of the Prospectus may be obtained.

By Order of the President,

WILLIAM LUPTON, M.A., Registrar.

21st September, 1867.

Dr. Steevens' Hospital and Medical

COLLEGE, DUBLIN.

THE HOSPITAL contains 250 Beds, with distinct Wards for Fever, Syphilis, Diseases of the Eye, and Diseases of Females; there is also in connection with the Hospital a Maternity Department, and an extensive Dispensary for Out-Patients.

Systematic Courses of Lectures are delivered during the Winter and Summer Sessions on all the subjects required by the Colleges, Halls, and the Public Service. These Lectures are given in a commodious Medical School, within the walls of the Hospital, whereby great saving of the students' time is secured, as well as more abundant opportunity of observing accidents and important cases, immediately on their admission.

Students enjoy the advantages of a Reading Room, Museum, and Lending Library.

There is accommodation in the Hospital for two Medical and six Surgical Resident Pupils as Dressers. Fee, £21, including Hospital Certificate.

Comfortable lodgings may also be procured in the vicinity of the Hospital (five minutes' walk from Phœnix-park), of which a Registry is kept by the Resident Surgeon. Parents and Guardians have thus an opportunity of placing the Pupil under the supervision of one of the Surgeons or the Chaplain of the Hospital. Some of the Lecturers receive Pupils to reside in their families.

Special Private Classes are held for the preparation of Gentlemen for the Licensing Bodies and Competitive Examinations.

Senior, Middle, and Junior Exhibitions, with Cusack Medals, will be awarded at the end of the Session to those whose answering exhibits general proficiency in every branch of their professional studies.

There will also be Two Prizes for the best reports of the cases which have occurred in the Hospital during the Session.

Two Midwifery Assistants are each year (month of November) selected by competitive examination—salary £30 per annum.

The Dissecting-Rooms, which are most spacious and well ventilated, were opened on October 1st for Practical Anatomy. The Lecturers and Demonstrators attend unremittingly throughout the day, to assist the student in this most important pursuit.

The Sessional Courses of Lectures will commence on the First Monday in November.

Fees, each Course—Hospital, £7 7s.; Lectures, £3 3s. Perpetual to both Hospital and School, 75 guineas, payable in two instalments.

Further particulars on application to Dr. Tyner, Resident Surgeon, at the Hospital; or to E. Hamilton, M.D., Secretary, 120, Stephen's-green.

Apothecaries' Hall of Ireland, 40 Mary-street.

The following new Medicines and Preparations are manufactured in the Laboratory on the premises, and a supply constantly on hand:—

THE NEW PREPARATIONS OF THE PHARMACOPŒIA, 1867.
TICHBORNE'S VESICATING COLLODION.

Tetrachloride of Carbon. Æther for Local Anæsthesia. Syrup of Phosphate of Iron, Quina, and Strychnia. Chlorate of Quina. Carbolic Acid, pure and crude (the latter free from Sulphuretted Hydrogen).

Trinity College, Dublin.

SCHOOL OF PHYSIC.

THE DISSECTING ROOMS were opened on the 1st October, and Dissections are superintended at the following hours by—

Benjamin G. M'Dowel, M.D., M.Ch., F.R.C.S.I., Professor of Anatomy and Chirurgery	From 1 to 3 o'clock.
E. H. Bennett, M.D., M.Ch., F.R.C.S.I., University Anatomist	,, 11 ,, 2 ,,
Arthur W. Foot, M.D., M.Ch., F.K.Q.C.P., L.R.C.S.I.	,, 11 ,, 1 ,,
Thomas E. Little, M.B. (Schol.)	,, 11 ,, 1 ,,
John M. Finney, M.B., L.K.Q.C.P., L.R.C.S.I.	,, 12 ,, 2 ,,
Augustus Smith, M.B., M.Ch., L.R.C.S.I. ...	,, 1 ,, 3 ,,
Walter G. Smith, Lic. Med. Dubl., L.K.Q.C.P., L.R.C.S.I.	,, 2 ,, 4 ,,

(Signed),

SAMUEL HAUGHTON, Medical Registrar.

Meath Hospital and County Dublin Infirmary.

Physicians.

William Stokes, M.D., Physician in Ordinary to the Queen in Ireland, Regius Professor of Physic, University of Dublin.
Alfred Hudson, M.D.Dub., F.K.Q.C.P.I.

Surgeons.

George H. Porter, M.D.T.C.D., F.R.C.S.I., Vice-President, Royal College of Surgeons in Ireland; Surgeon to Simpson's Hospital; Consulting Surgeon, Coombe Lying-in-Hospital.
Maurice H. Collis, M.D., Univ. Dub., F.R.C.S.I.
James H. Wharton, A.M., T.C.D., Fellow and Member of Council, R.C.S.I., L.K.Q.C.P.I., Senior Lecturer on Surgery at the Ledwich School of Medicine; Surgeon to the Cork-street Fever Hospital.
Philip Crampton Smyly, M.D., Univ. Dub., F.R.C.S.I., L.K.Q.C.P.I. Surgeon to the Institution for Sick Children, Pitt-street.
Rawdon Macnamara, M.R.I.A., F.R.C.S.I., L.K.Q.C.P.I., Professor of Materia Medica, and Member of Council, Royal College of Surgeons in Ireland.
William Stokes, M.D., Ch.M.T.C.D., L.R.C.S.I., Lecturer on Surgery at the Carmichael School of Medicine.

THE WINTER SESSION of 1867-8 Commenced on the 1st OCTOBER, and the Course of Clinical Lectures will commence on the first Monday in November.

Four Clinical Lectures will be delivered weekly, and instructions in Medicine and Surgery, will be given on alternate days.

The Physicians and Surgeons will visit the Hospital at Nine o'clock a.m., so as to allow the Members of the Class to be in attendance at their respective Schools of Medicine at eleven o'clock a.m.

The Hospital, which contains 120 beds for the reception of Medical and Surgical Cases, and to which an extensive Dispensary (open daily) and Lending Library are attached, is within a few minutes' walk of the College of Surgeons and the Ledwich School of Medicine.

An additional ward has been recently erected for the reception of Children, in which the Pupils will have an opportunity of studying that highly important subject—Infantile Disease.

Certificates of attendance at this Hospital are recognized by all the Universities, Colleges, and Licensing Bodies in the United Kingdom.

Four Prizes will be given at the termination of the Winter Course to the best answerers in their respective Classes.

The Office of Resident Pupil is open to Pupils as well as Apprentices.

Further information may be obtained by application to J. H. Wharton, Esq., 27, Upper Merrion-street.

Dublin, September, 1867.

Jervis-street Hospital.

THE WINTER SESSION of 1867-8 will commence on the 1st NOVEMBER.

Physicians.

Stephen M. MacSwiney, M.D., L.K. and Q.P.C.I., L.R.C.S.E., Professor of Medical Jurisprudence in the Catholic University.
William Martin, M.D.

Surgeons.

Richard P. O'Reilly, F.R.C.S.I.
M. Harry Stapleton, M.B., T.C.D., F.R.C.S.I., M.R.I.A., Examiner, Royal College of Surgeons, Ireland, Examiner in Surgery, Queen's University.
J. Stanus Hughes, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons, Ireland, Consulting Surgeon to the Coombe Lying-in Hospital.
J. K. Forrest, L.K. and Q.C.P.I., F.R.C.P.I., M.R.I.A.
Anthony H. Corley, M.D., F.R.C.S.I., Lecturer on Surgical Anatomy, Carmichael School of Medicine.
Austin Meldon, L.K. and Q.C.P.I., L.R.C.S.I., Demonstrator of Anatomy, Catholic University.
R. Persse White, L.K. and Q.C.P.I., F.R.C.S.I.

HOURS OF ATTENDANCE.

The Surgeons visit daily at Nine o'clock, and the Physicians at Ten.

FEES.

For Winter and Summer Session (Nine Months) ...	£8 8 0
For the Winter (Six Months), ...	6 6 0
For the Summer (Three Months), ...	3 3 0

Perpetual Pupils, £21, paid on entrance.

For further particulars apply to the Honorary Secretary, Dr. Corley, 14, Summer-hill, or to any of the Physicians or Surgeons.

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WILLIAM J. VIAN, Secretary.

Rotunda Lying-in Hospital, Dublin.

THIS HOSPITAL, the largest and only Chartered Clinical School of Midwifery in the British dominions, contains One Hundred and Thirty Beds, Fifteen of which are appropriated to the Diseases of Females.

The Lectures are recognized by the Royal College of Surgeons in Ireland, London, and Edinburgh; the King and Queen's College of Physicians; the Apothecaries' Halls of Dublin and of London; the Army and Navy Medical Boards; and all the other Licensing Bodies.

The Diploma from this Hospital is recognized by the Poor-law Commissioners as a qualification in Midwifery for all Hospitals and Dispensaries under their control in Ireland.

The Intern pupils, of whom there is only a limited number, have each a separate Bed-room, with the use of a Sitting-room.

Two Courses of Lectures are given yearly—the First commencing early in November, the Second early in May.

Applications to be made to the Master, Dr. Denham, at the Hospital, Rutland-square.

KINAHAN'S LL WHISKEY

DUBLIN EXHIBITION, 1865.

This celebrated Old IRISH WHISKEY gained the Dublin Prize Medal. It is pure, mild, mellow, delicious, and very wholesome.—Sold in bottles at 3s. 8d., at the retail houses in London; by the Agents in the principal towns in England; or, wholesale, at 8 Great Windmill-street, London, W.—Observe the Red Seal, pink label, and cork, branded "Kinahan's LL Whiskey."

Introductory Addresses.

THE LONDON HOSPITAL.

INTRODUCTORY ADDRESS.

By Dr. LETHEBY.

EIGHTY-THREE years ago, gentlemen, or more than three-quarters of a century back, our predecessors met in this Hospital to inaugurate the first medical session—the first I believe in this metropolis. It was, no doubt, done with much earnestness of purpose, and perhaps also with some anxiety lest the plan of study which they had devised—simple as it was—might not have been beyond the requirements of the time. If those earnest men could rise from their graves, and see us here to-day with the programme of educational work that we have before us, their feelings would, in all probability, be as much of wonder as admiration; for in fact it really seems that, to become a skilful and learned physician of the present day, a student must apply himself diligently to almost the whole range of human knowledge. He must not only be well grounded in the common learning of the schools,—classics, mathematics, modern languages, and history, but he must also be a perfect anatomist, a profound physiologist and pathologist, a consummate chemist, a mechanist of the first order, and he must be deeply versed in the natural history and structure of plants and animals.

You may think, perhaps, that the prospect before you is not inviting; but be not discouraged, for it will brighten as you go on. The main difficulties are at the beginning, when you have to encounter your own irresolution, and clear the way for habits of industry. Diligence, gentlemen, provided it includes honesty of purpose, is the sum total of a student's virtues; with it he can conquer every difficulty; without it he can do nothing; for here, as in every position of life, success is not dependant on the exercise of brilliant talents, but on a steady and diligent pursuit of your object; and I may further remark that habits of patient industry can only be acquired while you are young. Rarely is anything achieved in after life, nothing in scientific research, that has not had its origin in the studies of youth; then it is, and only then, that we can acquire the ἦθος for scientific investigation. The mind is then plastic, and may be moulded into any shape which the owner pleases; and the form which it then takes, it will retain for ever after. The habits of to-day, while you are young, will be the habits of to-morrow, when you are old. Youth is well called the golden time of life, for in truth it is the seed-time of it—as we then sow, be it wheat or tares, so shall we afterwards reap. Let me impress this on the minds of those whom I welcome among us for the first time to-day; and, without offering anything in the way of peremptory advice, which young men, as well as old, rarely value, and still more rarely follow, I may tell you that you have entered a profession which has no ordinary responsibilities; that to be useful in it—in fact not to be positively mischievous, you must master the subjects brought under your notice; for the knowledge which you now acquire will not only be the foundation for future attainments, but will also be the guide to future practice—and that is a terrible word, so terrible, that I hope when hereafter it comes to be impressed on your minds by the stern realities of experience, it will carry with it no vain regrets for the lost opportunities of the past.

And now, by way of encouragement, let me assure you that every one of the many subjects to which your attention will be directed, may, in its broad principles, be easily mastered; and may, moreover, be made a matter of pleasant and healthful occupation. According as you approach it, with a willing or unwilling mind, so will it be to you agreeable, or disagreeable and no effort of the teacher can make it otherwise. It is for you, therefore, to decide whether the period of probation in this Hospital, in so far as your medical studies are concerned, shall be pleasant or painful to you.

Every facility is offered to you to make the acquisition of knowledge easy; indeed, the contrast of our present means of learning, with those of a quarter of a century ago are most striking; and if with such means men were then able to learn their profession, and reflect honour upon it, what ought we not now to do. If, therefore, the subjects of medical study are more numerous than formerly, so also are the facilities for mastering them. I have known this Hospital for more than thirty years, and little by little I have seen developed in it methods of research, and means of communicating knowledge, which have made the study of medicine, and the diagnosis of disease comparatively easy. Here it was that Dr. Billing initiated the most practical and useful of all methods of becoming acquainted with disease—clinical observations and teaching. Here, also, the exploration of chest diseases by the aid of the *stethescope*, was first taught by the distinguished father of our colleague, Dr. Davies. Here, I believe, the very first classes in practical chemistry, were formed by my predecessor, the late Dr. Pereira. Here too, among the first who applied the microscope to the investigation of anatomical and physiological problems, were the two Queketts; and now, with our excellent museums of anatomy and materia medica, and our special wards and departments for the study of diseases of special organs—to say nothing of the facilities offered for dissection, and post-mortem examinations, which did not exist in my time—you have every opportunity for the acquirement of medical knowledge; in addition to which there are the natural inducements of valuable prizes, which the munificence of the Hospital committee has placed at our disposal; and there is hope that, ere long, a fund for the endowment of scholarships will be raised. Already a thousand pounds, or thereabout, have been obtained, and towards this, the house committee have, with their accustomed liberality, contributed £500. The scheme is, therefore, nearly ripe for execution; and it is proposed that the chief scholarship shall bear the name of Buxton—a name which stands high on the list of public philanthropists, and is honoured; but to us who know how constantly it has been associated with the noble work of the Hospital it is especially dear, and it is our desire that it shall be thus remembered.

There is also another scheme which I speak of hopefully, but as yet not confidently—it is the proposition to build a large wing to our medical college, whereby a good reading-room and library may be provided for the students, in addition to those in the Hospital; as well as increased accommodation for museum specimens, which are fast accumulating. It is contemplated to make therein a gallery of illustrations of skin diseases in models and drawings, and a like collection of anatomical preparations and figures.

And now, gentlemen, a few words as to the way in which, according to my judgment, these opportunities for study are to be used, and I will endeavour to show in what direction and with what aims the progress of medical science is now advancing. Diligence and honesty of purpose, are, as I have told you, cardinal virtues; and next to them are method and system in your labours. To study without plan, is to pursue knowledge in the dark; it is like sailing without chart or compass—you know not where you may drift. You may be very diligent, and may even acquire a multitude of facts, but they will be incoherent, and will serve no useful purpose. Be, therefore, methodical in your work; observe everything well; read your facts carefully; test them and explore them, if possible by experiment, and let your deductions from them be cautious—not that I would have you hesitate in forming hypotheses, for they are the pioneers of science; but be slow in forming theories, for they should be like settled convictions. A great authority, Sir I. Herschell, says, "the faculty of framing hypotheses is one of the most valuable qualities of the philosopher, provided he has a like faculty for laying them aside when they have served their turn; whereas a biggoted adherence to them in opposition to the tenor of facts, as they arise, is the bane of all philosophy." "The function of hypotheses," says Mr. Mill, "is one which must be reckoned absolutely indispensable in science. When Newton said *hypotheses non fingo*, he did not mean that he deprived himself of the facilities of investigations afforded by assuming, in the first instance, what he hoped ultimately to be able to prove. Without such assumption science could never have attained its present state. They are necessary steps in the progress to something more certain; and nearly everything which is now theory, was once hypothesis." The mischief of hypothesis is, when it is held too fast, and believed in too firmly; when, in fact, it is raised to the dignity of theory, without having been sufficiently tested. It then provokes a man to believe and to try to persuade others to believe, that he knows all about a thing, when, as Mr. Carlyle expresses it, he has only the outside skin of it, which he goes flourishing about.

In matters relating to medicine this is especially common, notwithstanding that medical opinions from the very uncertainty of knowledge should always be held with reservation; for we have to deal with phenomena which cannot, like those of experimental physics, be repeated at will; and they are so clouded with obscure conditions, and other surroundings, that their real nature can rarely, if ever, be clearly perceived. We may form hypotheses in these cases, but we ought not to advance theories; and yet how constantly is this done. There

is scarcely a student, who, when he has watched the manifestations of disease, does not think he can account for them, and so hurries himself to a theory. This has been so in all time, but with no profit to medical science. We smile when we hear that the followers of Zoroaster attributed all morbid actions in the living body to the operation of an evil spirit, and yet we gravely assert that they are due to errors of a vital principle. Wherein is the difference of these speculations, and what insight do they really give us of the cause or nature of morbid actions? A cloud of words, with a begging of the whole question, is generally the form in which pathological theories are presented to us. "Disease," says an eminent writer, "is not a positive existence, but a negative; not a new excess of action, but a deficiency; not a manifestation of life, but a partial death; and, therefore, the business of the physician is directly or indirectly, not to take away material, but to add; not to diminish function, but to give it play; not to weaken life but to renew it.

Again, another physician of the chemical school tells us that, as "health is a complete conformity of all the constituent textures and fluids of the body, to the due standard of chemical composition, when a deviation from the standard has occurred, the restoration of the parts in fault to their chemical integrity is to cure disease." I should weary you if I were to pursue this subject further, for such theories and modes of expression are what Locke has termed vague and insignificant forms of speech, passing for mysteries of science. "Hard and mis-applied words," he says, "with little or no meaning, have, by prescription, such a right to be mistaken for deep learning and height of speculation, that it is not easy to persuade either those who speak or those who hear them, that they are but the covers of ignorance, and hindrance of true knowledge.

Happily there is a somewhat clearer prospect of the matter before us, for men are beginning to study things instead of words, and to look more closely into phenomena rather than ultimate causes; and although objections may still be raised to certain mysterious forms of speech that are still in vogue when describing pathological actions, yet the views of a few far-seeing and thoughtful physicians of the present time, are slowly penetrating the mists of the subject, and they are beginning to perceive more clearly the phenomena of disease and the conditions on which they depend. We recognise, in fact, that disease, as Sir J. Forbes expressed it "is not a new thing superadded to the living body, and constituting a special entity in '*rerum naturæ*' but is merely the result or expression of an effort of nature to get rid of a poison which has been introduced from without, or developed within the body by a process of modified or abnormal nutrition." Inflammation, which is one of the commonest manifestations of disease, is no more, according to the late Dr. Todd, than deranged nutrition, involving much increase of cell growth, and therefore calling for increased supply of nourishment and cell force. The like view of it has been entertained by Dr. Hughes Bennet, whose writings on this subject are full of interest; and the opinions thus enumerated are leading to important rules of practice.

But, gentlemen, there is much to be done before the darkness which pervades the subject of disease can be cleared away; and foremost, perhaps, of the means for effecting it, is the study of the exact difference in the phenomena of allied diseases. That which has been done for continued fevers and syphilis, namely—the recognition of the different forms or species of disease included under one name, must be done for other maladies, and especially for those which are called zymotic. We desire also to know something definite of the nature of the thing which constitutes the *contagium* of these diseases. Already a little progress has been made in this direction, and many of the ambiguities which surround the subject have been cleared away. "Sometimes," as my predecessor in the Health Office of the city observes, "through the ascertainment, that seeming contradictions of fact, were facts of different disease confounded under a common name"—as in the case of typhus, typhoid, and relapsing fevers—"sometimes through the new and conclusive evidence of well recorded cases and experiments"—as those which have established the contagiousness of typhoid fever, steppe-murrain, and cholera; "sometimes through improved insight into the habits of a morbid poison," as in the case of syphilis, small-pox, &c.; "and generally through that better grasp which time has given us of the subject as a whole." But for all this, we are far from knowing the real nature—physiological and chemical, of that infectious influence which passes from the sick to the healthy, and at times seems to be developed under certain conditions of atmospheric impurity. In the case of syphilis and small-pox, the *contagium* can be isolated, its properties can be studied, and it can be proved experimentally that it is a living germ, capable of rapid growth and reproduction wherever it meets with a congenial nidus; but what is it in cholera, typhus, scarlatina, and the rest of the so-called zymotic diseases? Is it, there, also, a living germ, a *zyme*, or ferment, as its name implies, acting like the *torula* or *mycoderma* of common zeast, and springing into activity, and multiplying itself almost indefinitely, as long as there is material for growth? Or is it an organic particle in a peculiar state of decay, which has, according to Liebig, the power of communicating its own special changes to other forms of organic matters, and thus of reproducing itself? Or is it a chemical molecule acting like an organic poison, and giving rise to morbid phenomena, through which by some unaccountable power it is reproduced? All analogies are in favour of the first view, for it is hardly possible to conceive that inert or brute forms of matter, can have the specific attribute of life—that of reproduction. The researches of Pasteur in France, and Schroeder in Germany have proved almost conclusively that specific putrefaction and fermentation of organic matter, are due to the operation of specific molecular living things, and that when the air, or other agent, has the power of setting up those changes in organic matters, it is because it carries with it the specific living forms, or germs, which are the true agents of the change. It is, no doubt, the same with contagia of zymotic diseases. But are they of a vegetable or animal nature? Do they reproduce themselves within the human body, or in the matters discharged therefrom? Can they multiply in the impurities of a foul atmosphere? Are they capable, like the putrefactive and fermentative molecules, of existing for an almost indefinite period in a dry state in the air? and if so, what are the conditions which rouse them into activity? Why is it that certain persons exhibit a marked susceptibility to their action, while others are unaffected by them? That after once suffering from its action there should, in many cases, be little or no liability to a second infection? That coming fresh into a place and finding, as it were, a rich virgin soil, the force of their action should always be so powerful; and that after a time it is exhausted and finally dies out? Why is it that certain places, generally at high levels, with a free circulation of air, should suffer much less than damp and low-lying districts? How comes it, too, that certain diseases should fix themselves permanently in certain places of well defined area, and be to those places as natural, as definite, and almost as characteristic as the local fauna? that yellow fever, for example, which is the scourge of the tropics, should rarely be found out of it; that ague keeps to the swamps and marshy grounds of a country; that typhus and scarlet-fever, so prevalent in Europe, should be almost unknown in Asia and Africa? And why is it that in some cases we have such frequent explosive outbursts of disease, while in others they occur only after years and years of immunity? indeed, in the case of the epidemics of the middle ages it would seem that they had left us altogether.

These phenomena must be either due to a speciality of contagium, or to some peculiar condition of the human body. We speak of healthy, and unhealthy seasons, and in popular discussion are satisfied to refer the pandemic tendency of disease to the state of the weather. But how are they related? The circumstance of a higher or lower temperature than usual, a wetter or dryer season, the existence of more or less ozone in the air, the fluctuations of the barometer, &c., are, at present, but coincidences of facts; and they offer no explanation whatever of the etiology of disease. The same is also true of the observations which have been made concerning the local peculiarities of epidemics—as the altitude of a place, the condition of its soil, the water level in it, and the presence of putrid effluvia. All these, as in the last case, are but dimly seen to have an influence on disease. We know nothing of their real agency, and yet the wildest theories have been advanced in respect of them. At one time it is dogmatically asserted that epidemics are due to wet in the soil; at another to the water supply of the place. Now, it is the condition of the air which causes them, and then it is our filthy habits. Out of this confusion order must come, and the first step must be towards the investigation of the real nature of specific contagia. When this is known, and the laws which govern their action are determined, the caprices of epidemics will be explained.

Nor are we much more advanced in the interpretation of healthy phenomena. The fiction of an Archœus, and the mechanical and chemical theories of life, have given place to the dogma of a vital force, but the recent progress of physical science has done much to dissipate our illusions concerning

fictitious entities and mysterious forces. The study of physical phenomena, from a dynamical point of view, has led to the recognition of the fact that there is a definite correlation or mutual dependence of physical forces—"that the various imponderable agencies, or the affections of matter, which constitute the main objects of experimental physics, namely, heat, light, electricity, magnetism, chemical affinity, and motion, are all correlated, or have a reciprocal dependance; that neither taken abstractedly, can be said to be the essential or proximate cause of the other, but that either may, as a force, produce, or be convertible into the other; thus heat may mediately, or immediately, produce electricity, electricity may produce heat, and so of the rest." "I believe," says Mr. Grove, from whom I am quoting, "that the same principles and mode of reasoning might be applied to the organic as well as the inorganic world, and that muscular force, animal and vegetable heat, &c., might, and at some time will, be shown to have similar definite correlations." This was said almost a quarter of a century ago, and yet we are only just beginning to recognize the truthfulness of his hypothesis. A former teacher in this school, Dr. Carpenter, whose large acquaintance with physiology and physics, especially qualify him for a searching examination of this subject, has fully confirmed the views of Mr. Grove. He has established the fact that there is not only a mutual relation between the so-called vital forces, which are concerned in the growth, multiplication, and transformation of tissues, in secretion, in muscular and other organic motion, and in nervous action, but that there is also a like relation between vital and physical forces. Believing with Mr. Grove, that all these forces are but different modes of action of one and the same agency, he contends that the differences of action are due to the material substratum or medium through which it acts; "that operating through inorganic matter it manifests itself in electricity, magnetism, light, heat, chemical affinity, and mechanical motion; but that when directed through organised structures, it effects the operation of growth, development, chemico-vital transformations, and the like; and is further metamorphosed through the instrumentality of the structures thus generated, into nervous energy and muscular power." So that it is the speciality of the material substratum, thus furnishing the medium or instrument of the conversion or metamorphism of force that marks the differences between physical and vital phenomena. I believe that the time is fast approaching when all special entities for the explanation of physical and physiological phenomena, will be dispensed with, when the fundamental conceptions of matter and motion will be found sufficient for their explanation.

In the case before us, it is not necessary to suppose that a living cell or prime-ordeal germ contains within itself, in a latent form, the whole organising force which is required to build up the future plant or animal. Nor is it necessary to believe that vital force exists in a dormant condition in all matter that is capable of being organised, and that the living cell, in growing and multiplying, evokes and utilizes it. It is enough that the cell is the medium for the conversion or metamorphose of external physical forces into what are called vital actions.

The external force which the cell chiefly converts is heat; and Dr. Carpenter lays so much stress on the dependance of the organising forces of both plants and animals, on the continual agency of heat, that he regards their vital action as the correlation of it. It might, indeed, almost be said that the special and distinctive attribute of a living organisation is the power of converting heat into vital force. In plants it is entirely exercised in the growth and transformation of tissue; but in animals it is also rendered subservient to the production of nervous and muscular forces; and these manifestations of action are always exhibited in tissues, which retain their original cellular constitution. It is remarkable, too, that no cell has the power of performing two different operations at the same time: thus, says Dr. Carpenter, the *assimilating cells*, whose function it is to convert the raw material supplied by food into organisable *plasma*, exercise little or no chemical transformations; they do not undergo change of form; they do not exert any mechanical or nervous power, and they do not reproduce their kind. So, again, the cells which are specially endowed with the powers of *multiplication*, as well as those which are engaged in *reproduction*, have in each case no other vital endowment. It is the same with the *secreting* cells, and with the cells that are concerned in the production of *mechanical movement*, as the contractile cells of muscular fibrillæ, the ciliated cells of respiratory and other passages. Perhaps, also, it is the same with the cells, or cell-nuclei of the *ganglia*, and extremities of nerves which in all probability are the agents of *nerve-force*. This faculty of exercising but one function at a time is a marked peculiarity of physical forces. If, for example, the force derived from chemical action in a galvanic battery be made to act on a fine platinum wire, it will show itself as *heat;* or if it be conducted through a coil of wire placed around a piece of iron, it will exhibit itself as *magnetism;* or if it be conveyed through acidulated water, it will appear as *chemical action;* but all these manifestations of it cannot be fully exerted at the same time. There is, consequently, a certain quantivalence of action; in fact, the idea of the correlation and mutual dependance of forces, involves the necessity of a certain definite ratio or equivalence of action; for as force cannot be created or destroyed, it must ever be acting in some fixed proportion. If, therefore, the heat and light force received by the plant be converted into vital force during the growth and transformation of tissue, there must be a quantivalence of action, and the force must endure. While the cell lives it is exerted in the manifestations of vital phenomena, but when it dies and decays it is converted into chemical action, and then into heat and sometimes light. In the case of the plant the transformation of heat force is chiefly concerned in the production of tissue; and so also in the animal during the processes of growth and repair; but when the latter engages in the main duties of its existence—the development of motion, it resorts to the affinities of its food, and as these are the embodiments, so to speak, of the light and heat, through whose agency they were formed, it may be said that the functions of the animal body are performed through the agency of cosmical force. The plant is the machine or medium whereby light and heat are converted into the force which forms tissue, and the animal is the machine or medium for changing the affinities of the tissue into other manifestations of force, and finally into heat. The one is accompanied by processes of deoxydation, and the building up of compounds; the other by processes of oxydation and pulling down, but throughout the whole of these changes there is the same force operating through different media.

It follows from this, that there must be some definite relation between food and animal force. Hitherto it has generally been thought that the nitrogenous element of food is the exponent of its value, and that there is a direct relation between the waste of muscular tissue, and the amount of work performed. Attempts have, therefore, been made to estimate the relation by observing the amount of nitrogen excreted, as urea, during exercise of different degrees of activity. The results, however, have shown that under the best circumstances, the actual work performed exceeds that produced by the oxydation of the nitrogenous constituents of the food and worn out muscle by more than thirty per cent., and in some experiments which were made in 1866, by Drs. Fick and Wislicenus of Zurich, when they ascended the Foulhorn, which is 2000 feet above the lake of Brienz, in Switzerland, it was ascertained that the amount of work done in climbing the mountain, exceeded by more than three-fourths that which it would have been theoretically possible to realize from the oxydation of muscle, as indicated by the quantity of urea in the urine. Consequently they conclude that muscular force is chiefly, if not entirely, derived from the carbo-hydrogen of our food, and that the muscle is no more than the machine for the production of motion. Like a steam-engine, it converts the affinities of the oxydised fuel into heat, and then into visible motion. Like it, also, its movements must cause decay and necessitate repair. The nitrogenous constituents of our food are chiefly concerned in this last process, and it is very doubtful whether as much force is not expended in this process, as is afterwards produced by the oxydation of the worn-out tissues. In the consideration of this subject, however, we must not lose sight of the fact that there is a difference between sustained and temporary muscular activity. The herbivora, as the horse, the chamois, the stag, &c., are capable of great temporary exertion, but they are not equal to the carnivora for sustained energy; and with our own domestic animals, we find that they are capable of performing most work, when they are supplied with vegetable food containing much nitrogen.

Lastly, I will remark, in illustration of the general tendency of physiological pursuits, that great efforts are being made to determine the constitution as well as the composition of the fluids and tissues of the living body; for there has long been a desire to understand the way in which the common affinities of matter are controlled by the living cell. Broadly, the chemist has ascertained that the chemical functions of the plant

are those of reduction or de-oxydation, whereby carbonic acid and water lose oxygen, the residual elements with the nitrogen of ammonia forming tissues. The functions of an animal, as I have said, are of an opposite nature, for instead of building up they pull down; and in using the tissues of plants as food they oxydise them, and finally restore them to nature as carbonic acid, water, and ammonia. "The two extremes of these changes are," to use the words of Gerhardt, "carbonic acid, water, and ammonia, at one end; albumen, gelatine, fat, and cerebral matter at the other;" but the transitions to these extremes are countless, and are as yet almost beyond the ken of science. Who can tell us by what series of transformations the carbonic acid and water, received by the plant, are converted into vegetable acids, sugar, and fat? And still more mysterious are the phenomena which accompany the formation of tissues. Why is it that a living-cell, as we call it, possesses the power of transforming cosmical forces, light and heat, into cell-force; and in aggregating matter, how is it that it keeps common affinities at bay? That when it dies, as we express it, the matter so aggregated during life, decays, and comes again within the reach of ordinary affinities? What answer can we give to these questions? No other than that organic matter is the designed or appointed medium of these changes; and we can no more explain the phenomena than we can say, why it is that mineral matters are the appointed media of other manifestations, as light, heat, magnetism, and electricity. Such questions are beyond the scope of the human intellect, and mark the limit of our understanding.

Apart from these questions, however, the chemist has hope that he will penetrate the mystery of organic changes, in so far as the chemical combinations are concerned. Already he has found the clue to many of the vegetable processes of reduction, and has been able to produce a large number of organic compounds from carbonic acid, water, and ammonia, and even from the elements themselves: in fact, of the three great classes of alimentary substances, the production of the oleaginous is quite within his reach; the saccharine is almost within it; but the albuminous is still far beyond it. He has thus proved that the dogma of a vital-force, which has tyrannized so long over men's minds, has no foundation; for a host of organic compounds can be made artificially.

And then with regard to the processes of oxydation, which characterise the functions of animals, he has been able to imitate them to a much larger extent; for, by subjecting organic compounds to chemical transformations he has produced a multitude of secondary products like those of the living world; recognizing the fact that all secondary products of tissue-transformation are compounds of comparatively simple molecules, from which the elements of water have been eliminated—in other words that they are composed of the residues of other molecules, the chemist has been able, not only to classify them into certain definite groups, but he has also been able to construct them after the fashion of organic nature. *Stearin* has been produced by joining the residues of glycerine and a fatty acid. *Sarcosine*, which is a muscle-product, by putting together the residues of acetic acid, and methylamine. *Hippuric acid*, from the residues of benzoic acid and glycosine. *Taurine*, which is a constituent of bile, from the residues of isethionic acid, and ammonia. *Urea*, from the residues of carbonic acid and ammonia, and so of many others.

In this way "organic chemistry has achieved," as Dr. Odling truly observes, "a great *analytical* success. The compounds so elaborately built up by the living organism, it has pulled to pieces, and the pieces themselves it has arranged into natural series and groups of associated bodies." It has also effected *synthetical* processes, and has built up organic compounds from mineral elements; and its hopes are that the entire processes of organic nature, short of making tissue, will ere long be seen and imitated. Presumptious man! it may be thought, are you not striving for the impossible? In these explorations of vital phenomena, are you not trespassing upon holy ground? Can the finite measure the depths of the infinite? Already we have done so. "The being of a day has pierced backwards into primœval time, deciphering its subterranean monuments, and inditing its chronicle of countless ages. In the rugged court and shattered pavement of our globe, he has detected those gigantic forces by which our seas and continents have changed places; by which our mountain ranges have emerged from the bed of the ocean; by which the gold and silver, the coal and the iron, and the lime, have been thrown into the hands of man as materials of civilization, and by which mighty cycles of animal and vegetable life have been embalmed and entombed." "He has ascended the Empyrean, and by steps of physical research, has reached the visible boundaries of the universe, and has scanned with eagle-eye the mighty creations in the bosom of space. He has marched intellectually over the mosaics of sidereal systems, and has followed the adventurous Phæton in a chariot which cannot be overturned." "Ideas like these, when first presented to a mind thirsting for knowledge, are apt," says Sir David Brewster, from whom I am quoting, "to disturb its equilibrium and unsettle its convictions. Should this be the mental condition of any one of you, be not alarmed for its results, for this species of scepticism is the infant condition of the uncurbed and generous intellect. There can be no convictions where there have been no perplexities and doubts; and that faith which comes in the train of early scepticism will finally rest upon an immovable foundation."

"Credulity, on the contrary, is a disease of feeble intellects and ill-regulated minds. Believing everything, and investigating nothing, the mind accumulates errors, till its overgrown faith o'er-masters its untutored reason. Such a facility of belief may, in some cases, claim the sympathy even of philosophy; but when it spurns the strict demands of inductive truth, and plants imagination at the door of the temple of science, it cannot be too severely reprobated, or too sternly shunned."

Be hopeful then, gentlemen, and fear not to scan the infinite; for by enlarging the boundaries of knowledge, we are brought nearer and nearer to the all-wise and omnipotent Being who is the author and ruler of all things, and failing to comprehend his works through the feebleness of our minds, let us bow our heads in humility.

WESTMINSTER HOSPITAL.

INTRODUCTORY ADDRESS.

By W. F. TEEVAN, B.A., F.R.C.S.

GENTLEMEN,—During the entire academical year, there are only two occasions on which we depart from the routine of our daily work—the opening and closing of our temple of knowledge.

This evening, my worthy and respected colleagues have deputed me to welcome you all here. To the old students I would say—We are happy in seeing you once more back amongst us with recruited health and strength, and trust that the closing autumn of your career within these walls, will bear rich fruits, and that you will not fail to realise the heavy reponsibility which rests on your shoulders, inasmuch as the younger students will be greatly influenced by your example, and the tone of the school will be a reflexion of yourselves. Therefore, to you, gentlemen, who are about to finish this the first race in your professional life, I would say—let the pace be very fast, for the more you strive to increase the distance which separates you from the freshmen, the more will they endeavour to lessen the gap, and it is well for them to feel at the very outset, that the work cut out for them is no easy task, but one which will require all their pluck and energy. Remember that the race of life is indeed swift, and each year the pace grows faster and faster. Make good running, and keep the standard high. Do not let the freshmen contract the bad habit of doing their work in a slovenly fashion. Let them feel that they must win their spurs.

It is, however, to the young students that I would particularly address myself.

I would, *firstly*, ask you what motive induced you to choose this particular path, and *secondly*, what principle will be the basis of your conduct through life, for upon your answers to these questions will mainly depend your happiness and welfare.

We must of course presume that the first and absolute motive which makes any man work, is the necessity of obtaining the means whereby he may live. But putting this aside as obvious, we will proceed to enquire what are the secondary motives. There is, firstly—ambition, the desire to be rich, or famous, or notorious, to obtain what is called a high position in the world; and, secondly, a man may be prompted to enter a given path, because it seemed to him to be the one in which he would be best able to do his duty, and earn an honourable competence in that position in which it had pleased God to place him. Now, if a man is really ambitious, I presume that any profession which he enters through choice has something to offer him, which will either satisfy his craving or inflate his conceit, and therefore, if a man has entered the profession through ambition, it is well at the very threshold

to ask him if there is really anything in it which can satisfy his want.

If any one can feel any self-glorification, or conceit, after obtaining what is called a very successful position in our profession, then I would say his ambition must be small indeed, and easily satisfied. If you were ambitious to obtain what is called a great place in the world, you would have had a much larger field open to you if you had entered one of the European armies as a common soldier. Bernadotte, King of Sweden, Napoleon, Massena, Murat, Junot, and a host of others, commenced life as common soldiers.

Then, again, if ambition were the motive which carried you into the profession, and brought you up into the highest place, it would be very galling to your conceit to think that the day after your death the world would not so much as miss you, for the simple reason that there would be a host of men quite as good as you waiting to fill your place. The only men the world really misses are great statesmen, soldiers, and sailors. They are necessities for the national existence, and we know to our own cost how very difficult it is to replace them.

Then again, if, irrespective of any considerations as to social status, you were ambitious to be rich, you would have done far better to have entered that trade which has a particular fancy for the corner house, and the average income of whose members far exceeds that of the medical profession, for although you would, to a certain extent, have lowered your social status, you could have consoled yourself with the fact that you could have retired early, sent your son to Eton and Oxford, then bought him a commission in a crack cavalry corps, and thus put him into the very first of social positions.

Remember always, that the most successful men in our profession never bring up their sons to it. Hence it is that we see neither continuation nor reproduction of great names.

Our profession when contrasted with the sister ones is marked by three very undesirable characteristics. Its numbers are the largest, its prizes the fewest, and its pay the worst.

The struggling curate, "passing rich on £40 a-year," may ultimately swell out into a portly bishop; and the poor lawyer's clerk, who lives, nobody knows how, may in time fold the ermine around him. These prizes are something to look forward to, and in the meantime the curate and the clerk can content themselves with one or other of the many thousand snug berths open to them. Then again, when these gentlemen get their periodical attack of gout, they can put their legs on the sofa and laugh at the howling wind.

Not so, however, with the medical man. He has to work hard to get his living, and work hard to keep it, for he knows that if illness or inability to work overtake him, that moment does his income begin to fade.

If, therefore, a man has entered the medical profession through ambition, I cannot congratulate him on his choice. If, on the contrary, you have entered the profession, from that best of all motives, because it seemed to be the one in which you would be best able to do your duty and earn an honourable competency, in that position in which it had pleased God to place you, I can, indeed, assure you that your choice is a good one. There is no profession in which a man of ordinary intellect and industry is so sure of gaining a moderate competency. Instances of failure, apart from unavoidable causes, are almost unknown. But our profession has infinitely greater recommendations. There is scarcely any path of life in which a man may render greater services to his fellow-creatures, and he carries with him through life the greatest possible consolations—the fact that his work has not a single misgiving to cloud it—its good is unalloyed. Happily for us our profession looks upon the great human race as one and indivisible. We know of no differences of race or religion, and hence in whatever clime our lot may be cast, we can minister equally to all men.

And now, gentlemen, having entered the path you have chosen, what is the motive which is to induce you to exert your powers to the utmost, and what principle will regulate you in your dealings with those who like you are running the same race, and who happen to be your immediate companions in your voyage through life. There are two motives which will generally urge men onwards in the race, and eventually carry them into the foremost rank.

Some men become great through the ambition to be so, others, perhaps, who are humble-minded, but whose actions are all regulated by a deep sense of duty, find themselves unexpectedly on the pinnacle of fame.

Gentlemen, if you would study your own happiness and that of your fellow-creatures, duty and not ambition must be the watchword of your policy through life. It is better for every man to be happy rather than fortunate. You well know that when Crœsus was at the zenith of his power, he thought himself the happiest man on earth, and interrogating Solon to that effect, was disconcerted at his reply, "Till the closing scene of life, O Crœsus, call no man happy but only fortunate, for upon many the gods have thrown a passing gleam of sunshine, and then cast them uprooted on the earth," and you remember how when Crœsus was captured by Cyrus and cast on the burning fire, he realised the words of Solon.

If we take Solon's measure and apply it to the ambitious men who have figured in the world's history, we cannot call them happy. Alexander the Great cried when he had no more worlds to conquer. The great Cæsar was slain because his ambition had come to that pass as Seneca said—that either Cæsar or the State must perish, and the great Napoleon ended his days caged up on a lonely rock. All history is but the record of the exaltation and abasement of ambitious men.

An ambitious man seeks his own elevation at the expense of others, whereas a man who rises by duty finds his elevation through the good of others. One man thinks of himself only, the other thinks only of the public good, and society at large lifts him on its shoulders to his shelf in the cabinet of history.

The ambitious man must stoop before he can rise—the man of duty has to pass through no such degrading ordeal.

We cannot say that the influence of the ambitious man is calculated to improve the standard of the human race, but we know for a surety, that the man of duty ennobles and purifies his kind.

The influence which men, who have become great through duty, have on all time, is almost immeasurable. Not only do they exalt the public mind and spread a halo around the age in which they live, but they also teach men that there is something more worthy to live for than the accumulation of riches, or the pursuit of base and purposeless ends. This age, the best and happiest of all time, has brought forth two men—Havelock and Stonewall Jackson, who passed away from us with unsullied fame. Their brightness was more dazzling than the noon day sun, and the epitaph of each for all time will be "*Sans peur et sans reproche.*" Such men live for ever. Actuated only by a sense of duty they strove the utmost for the public good, and hence, without seeking renown, they found themselves raised to the highest greatness. Take two medical students, the one ambitious, the other actuated by a sense of duty, and feeling thoroughly the very responsible position in which he is placed. The former student looks upon his profession as a means to exalt himself, hence he will sacrifice everything to gain a prize—he will devote his time and energies to one thing, neglecting all his other studies. Each session he will repeat the performance till at the end of the time he finds himself with his diploma in his pocket, but knowing nothing perhaps of the practical part of his profession. The student who works from a sense of duty, will study hard at the several branches as they are presented to him each session, and at the end of his time he finds himself beginning life with a very good knowledge of his profession. The student who obtains a certificate or prize in every class which he attends, is actuated by a sense of duty, for he feels that he ought not to get up a thorough knowledge of one subject only, but that he ought to obtain a good knowledge of all those subjects which form the corner stones of the Temple of Medicine.

I earnestly trust that you have realized the very heavy responsibility which you have incurred by entering the Medical Profession. In the whole range of society there is scarcely any class of men, if we except naval and military men, and engine-drivers, who have such a control over the lives of their fellow-creatures. It behoves you, therefore, to guard well the precious trust committed to your charge. I ask you, supposing you were travelling in a railway train, and that through the effects of a collision you lost your leg, what would be your feelings towards the engine-driver, if you should afterwards find out that the accident had been caused through his neglect or incompetency? That, therefore, which you would feel towards him under those circumstances, apply to yourselves, and you will, in some degree, realize what would be your feelings if, through your inefficiency, a fellow-being were to suffer unnecessarily.

A student who is actuated by a sense of duty will never require any one's rebuke or advice, to keep him up to the mark.

Every student is bound to work hard, and employ to the best purpose those talents with which he has been gifted. Society is made up of a number of units, each unit depending on its fellow. Every man, of his own free will, chooses his profession, but once having made the choice he is bound to do the very best in it that he can for his fellow-men. When a

man proclaims himself of a certain trade or profession, he thereby gives you to understand, that if you will employ him, he is willing and able to do the best he can for you in his particular line, because he knows full well that if he were to say beforehand that he would not, or could not do the best for you, you would never employ him.

But not only are there social considerations which require a man to do his duty, but there is a higher motive, for, in whatever station of life it may have pleased Providence to place a man, that man is bound to employ, to his own advantage, and that of his fellow-creatures, those talents with which he has been gifted by the Deity. Hence, a student ought not merely to content himself with obtaining a thorough knowledge of his profession, but he ought to remember that he must for ever be a student, for not only must he work to keep up the knowledge which he has already acquired, but he must study to make himself acquainted with the fresh additions that are being almost daily made to our store of knowledge.

If men merely contented themselves with the knowledge handed down to them, there would be no progress, but it is a man's duty to do something more—he must try and add something to the great storehouse of knowledge. It is for each of you to realise the spirit of the oath of the young Greek of old—

"*αμῦνεῖν τῃ πατρίδι και αμείνω παραδῶσειν.*"

Be it your lot, gentlemen, not only to maintain unimpaired that which we are about to deliver to you, but do you hand it down better than you found it.

Happy that man, who, at the close of life, can say that he hands down his profession better than he found it, that, through his labours, something has been added to science, and that he has not lived in vain.

Therefore, gentlemen, let duty rather than ambition be your guide. The man, who in any sphere of life does his duty, is not only worthy of all respect, but he carries with him the greatest possible solace under all his struggles and trials—the approval of his own conscience.

Actuated by a sense of duty, your relations with your fellowmen will be distinguished by a noble, bold, and straightforward conduct, and you will never be tormented by that perpetual unrest which marks the man who has chosen the path of a dark and tortuous policy, and who may be described as "Animus audax, subdolus, varius." You will also look upon the successes of your companions, not as so much taken from you, but as so much added to the public good, and that green-eyed monster, envy, will find no resting place in your heart.

I will now proceed to the consideration of some points in a student's career.

The student must remember that the time of his pupilage is, indeed, short, that it will be very difficult, and, in some cases, impossible to retrace his steps, that yesterday has faded away beyond recall, that his life is a measured span, and that every day leaves him short by a day of that time which is allotted to him to do his work. Therefore, the earlier and more zealously the student sets about his work, the easier it will be for him.

There are two separate things in learning an art. There is the theory, which is one thing, there is the practice, which is something entirely different. The will to do is one thing—the power to execute is another thing. You may read up all about a steam-engine, how to drive it, etc., think you know all about it, and yet, when you are put on the machine, you may be totally unable to make it move one inch. A General may learn all about the art of war, and yet be unable, as we know to our cost, to manœuvre a single regiment in the face of an enemy. A surgeon may read up all about an operation and think he knows how to do it, and yet, when he attempts to do it, fail miserably. So also a student may read up all about the diseases of the skin, have coloured plates by his side, and yet, when his knowledge is put to the test, he will not be able to tell the chicken-pox from the small-pox.

You see, therefore, gentlemen, that you ought above all things to try and obtain a practical knowledge of your profession. Book knowledge is not the end and aim of your studies; it is simply a means for facilitating your acquisition of practical knowledge. Your success in life will almost entirely depend on your having a practical knowledge of your profession. Some men, however, are never able to express themselves clearly on a subject which they may know very well, but in spite of this they will succeed capitally in life. The public soon learn to find out whether a man's knowledge is on his lips only, and your knowledge, to be useful, must radiate to the tips of your fingers.

Many a man will be able to give a very good judgment on a point, and yet be totally unable to describe the various processes through which his mind passed to arrive at the result. Hence, it is, that many men, who have never learned logic, reason very well, whilst other men who may have learned logic do not reason so well. A surgeon who is about to perform an operation may give his pupils a very confused idea of what he is going to do, and yet directly he handles his knife you see what a good operator he is, and that that which he could not describe to you he knows perfectly how to do; whilst another surgeon may give his class a clear and fluent account of what he is going to do, and yet, when he commences his operation, you see only failure. Your profession eminently implies that your kind of knowledge ought to be that which consists in knowing how to do the thing. Do not catch at the shadow and miss the substance. You ought, therefore, never to forget that your place is either at the side of the living or of the dead. Your books and lectures are all accessories, and are for the purpose of facilitating and expediting your acquisition of knowledge either of the living or of the dead.

There are some points regarding your medical education, to which I would especially direct your attention.

Firstly—The education of your senses. Take, for instance, the sense of sight. You ought thoroughly to train your eye to the different appearances of colour in disease. Suppose, now, we take erysipelas. If you read the description of the colour of erysipelas in half-a-dozen authors, you will find it pictured differently in each. One will describe the colour as scarlet, another red, another crimson, and so on. Well, then, is each correct? Nobody can tell you. No book can convey to you the idea of colour, simply because our ideas of colour are to a great extent relative. It is, therefore, of the highest importance that you should yourself see what the colour is in erysipelas, because nobody can give you an accurate idea of it, and although you will by observation and experience be able to acquire the facility of recognising erysipelas by its colour only, yet, inasmuch as books did not impart that knowledge to you, so will it be also true that you will not be able to transmit your knowledge to any one else. You must see for yourselves, and judge for yourself. Then, again, suppose we refer to the exercise of the sense of touch in the same disease. In the treatment of that form which involves the skin and cellular tissue, it is of the highest importance to make incisions early, the moment the skin becomes tense. The object of that treatment is not to let out the matter, but to prevent its formation, and you see how necessary it is for the surgeon to have an educated sense of touch to know when the time has arrived for making incisions—and that knowledge his fingers alone can give him.

So, also, with the sense of hearing. When you first begin to use the stethoscope you will hear nothing, but after a time, you will, with perseverance, be able to recognise very delicate differences. Therefore, gentlemen, observe well in the wards of the hospital.

Secondly—I would strongly advise you to strengthen those perceptions which are instinctive.

You have all of you in your lifetime met a person walking about, perhaps, and following his usual avocation, and something about him has told you that he has not long to live. Now, what is it upon which you have based your idea? Not on judgment. It was instinctive. You might know nothing about the man. He might even look well, and yet you felt he had not long to live.

This instinct, which so often enables you to foretell a given event, which is not perhaps expected, is indeed very valuable. It is very important to you in this way. A patient may come to you complaining, and you may be unable, on examination, to discover anything wrong about him, and yet there may be a something about him which tells you that he will not live, and you are thus prevented from giving a favourable opinion and stultifying yourself.

I should, therefore, strongly advise you to study well the physiognomy of disease, not only in different diseases, but in different stages of the same disease, for you will thus often be enabled to tell what is the matter with a man by simply looking at him.

This last remark leads me to speak of the study of the mind, for, indeed, the countenance is merely the reflex of the mind. Psychology is a study which has been, and is still, greatly neglected by medical men. A man is not a mere machine, or a mere conglomeration of cells and corpuscles. He is something more than that. He is a thinking, reasoning,

and emotional being. He is also a compound creature, for he has two natures, an animal one, and a spiritual one, and the two are often at war within him.

Judge, therefore, how irrational it would be to suppose that there are no differences presented by these two. Many of the animal phenomena of our nature, are, to a certain extent, dependent on, and resulting from, mental processes. In some cases, indeed, the disease of the body is the result of some depravation of the mind, or perversion of the moral force; unless, therefore, you can rectify the mental or moral state, you will labour in vain to cure the bodily one. Hence, a man who studies the body only, the mere casket which contains the jewel, will know but little of what disordered states consists of, or result from.

It is for you to make yourself acquainted with the varying forces brought into operation. In order to make yourself acquainted with the mind, and see its influence, you ought to examine, as much as possible, not only different men, but also different races of men, and see the modifying power, whether for good or for evil, which different systems have over them. I would, therefore, very strongly advise you either to spend your long vacations abroad, or else, when you have finished your studies, to give what time you can afford to the enlargement of your sphere of observation by foreign travel.

It is generally admitted that until a man has travelled he is infested with some extraordinary prejudices and narrow-minded ideas. The evil, however, is lessening every day, because men more and more move about, and, indeed, every father looks upon travelling as part and parcel of a young man's education. But travelling is a duty which you owe to the great family of the human race, and for a man not to make himself acquainted with the various races, is almost as unkind and ungenerous as for a man not to know the members of his own family. Besides, too, it is not well for you to exclaim as simple Tityros did—

> "Urbem, quam dicunt Roman, Melibœe, putavi,
> Stultus ego huic nostræ similem."

But it is indeed well that you should be able to say—

> "The world is my home, and every man my brother."

Far above a man's duties to his country are the duties he owes to the great human race, and the measure of a man's usefulness is not so much what he may have done for his country, but what he has bequeathed to mankind. History, unfortunately, shows us that a man may be a great patriot and yet an enemy to the human family.

I would now say a few words to you on a very important subject to you—the preservation of your health.

The very best friend each of you can have is your physical power. Remember, therefore, that you treat your constitution kindly, for, with it in your favour, you can do almost anything, whilst with it against you, you will be helpless.

A student's habits are generally unfavourable to health, and hence the proverbial expression, "the pale face of a student." It may now be asked whether these unfavourable habits are necessary to, and inseparable from, a student's life. I answer that they are not necessary concomitants. Let it be understood that I am confining my remarks to real students, for there are many nominal students who never work, and yet contrive to injure their constitutions in other ways. The following are some of the chief evils of a student's life—the habit of having his meals alone, excessive smoking, excessive tea-drinking, want of exercise, and proper periods of relaxation.

Students who live alone generally take their meals alone, and this is, to a certain extent, injurious. When a man sits down to a meal by himself he looks upon it as a task, or a thing to be got through, and, hence, is very likely to acquire the habit of bolting his food, and finally suffer from indigestion. The sight of a meal set out for one individual is of itself suggestive of melancholy, for it implies that a man is, to a certain extent, quite cut off from his friends, or that he has no friends, or that he is an exile. Hence, no man can feel any joy or pleasure in sitting down to a lonely meal, and it often happens that, in order to relieve the monotony, the person contracts the bad habit of reading at meals. Nothing is so favourable for digestion as lively conversation during meals, for men are not then inclined to bolt their food or hasten over their repast. Students, therefore, would do well to associate with themselves those of their fellow-companions, whose habits and tastes are similar to their own.

There is no evidence to show that moderate smoking is injurious, but students ought to remember, that what is moderation in men leading a healthy open-air life, is positive excess in persons of sedentary habits. Students will sometimes smoke during an entire evening's reading, and then feel surprised that in the morning they have no inclination for breakfast. The fact, too, that the room in which they smoke contains a polluted atmosphere, makes matters worse.

Tea-drinking is a favourite thing with some students. They go home, after being at the hospital all day, dine late, and when, after dinner, they wish to work, they feel drowsy and unable to read to any purpose. A cup of strong tea is now taken to waken them up, as they say. The student then feels fresh and lively, and works, perhaps, till midnight or past. He has been fighting against exhausted nature, and will infallibly have to pay the penalty. No man leading a sedentary life ought to take much tea. Students often suffer from palpitation of the heart, loss of appetite, and wakefulness at night from taking too much tea. The hardest work you have to do is your reading at home. It requires a greater concentrating of your mind than any work which you have to do at the hospital. It is therefore well to do your hardest work when you feel fresh; your heaviest work ought to be in the middle of the day, and not at the end of it. The mid-day lunch is not sufficient for a student, and when he gets home at night he feels a craving for his dinner, in order to relieve his emptiness. He then either eats too much for his already weakened stomach, or else he is quite astonished to find that, although when he sat down to dinner he felt very hungery, yet, that after he has been eating for a very few minutes, he feels quite satiated. Now, if a student take his dinner in the middle of the day, when he will, if he is well, feel most hungery, he will find his digestion good, and after dinner be fresh and strong for work. The fact is, the same meal which in the middle of the day will make him feel vigorous, will, at the end of the day, render him quite drowsy. An exhausted stomach cannot tolerate a heavy meal at the end of the day, unless the person be left to sleep, which he will infallibly want to do.

A student who dines early, will be able to take a light meal when he gets home in the evening, and be fit for several hours good work. He ought never to do much work at night, and every hour he works beyond what he can do without stimulation, is so much taken out of his constitution. The best way for a student to get the greatest amount of work out of himself with the least injury, is to adopt the habit of rising early. It is notorious that the early riser not only lives longer, but also enjoys much better health than the late riser. The English army rises at six. The French army rises at four in the summer and five in the winter. See what pictures of health soldiers are. A Frenchman is always better when he is a soldier than when he was a civilian, although not so well fed, and when he again becomes a civilian his muscles are neither so hard nor his face so fresh as before.

I would strongly advise all students to rise at six, to have a cold sponge bath, and rub themselves very sharply with rough towels, till they feel quite warm. The bath is not only a preservative against taking cold, but it tends greatly to muscular vigour.

A student ought to use dumb bells every day for a short time. About the best time to exercise with them is soon after breakfast, and ten minutes or a quarter of an hour's work with them every day will result in making his chest two or three inches bigger than it otherwise would have been—to say nothing of the development of the muscles of the arms and legs. In fact, during the winter session you will find that unless you use dumb bells you will rarely have an opportunity of exercising the muscles of your arms, and I should also recommend you to pay a visit to some gymnasium twice a week. In summer you will have many opportunities for exercise in the open air, and I trust that to-morrow I shall have the honour of enrolling you all as members of that most worthy institution, "The Westminster Hospital Boating Club." We have also a cricketing club, and to that I hope you will belong.

Remember the only criterion of the value of your work is not the quantity but the quality. Many students work hard at night and yet in the morning they find they have forgotten much. The fact is, that in order to study properly and retain your reading, your brain must be fresh. The work done, whether mental or physical, by a jaded man is worthless. The exhausted student finds his work very hard because his perceptions are blunted. It is proved by all experience that no man can keep up a high degree of mental or bodily training for any length of time. If a prize-fighter, who by his training has been brought into perfect condition, continues that training too long he breaks down under it. It is the same with the mind. Every man requires relaxation at times. You may perhaps have

heard of Bianconi. He was the most extensive proprietor of horses in the world. He wanted the answer to the following question—Given a certain number of miles for a horse to run each week. Is it better for the horse to do the work in six days and rest on the seventh, or to do one-seventh part of the work each of the seven days? He found, by experiment, that those horses which did their work in six days and then got a clear day's rest, were in much better condition than those horses which did one-seventh of their work each of the seven days.

Let this, therefore, be a hint to you. A man who rests from Saturday night till Monday morning, is in a very much better state of mind and body to commence work again on the Monday morning than the man who has worked all Sunday. A student who lives so as to keep himself fresh and strong, will always do his work in about half the time that the jaded student will.

All men who have been great successes in life have nearly always attributed their success to their physical power, so that when called on for a severe effort they were able to do that which broke down others. Remember it is a true saying that all the great prizes in life fall to the second-rate men, for it so often happens that brilliant intellects have neither the stamina nor perseverance to carry them to the front ranks.

For success in life, it is necessary that a man have a good constitution, enjoy health, be blessed with common sense, but only very moderate abilities.' Therefore, see that you treat well that best friend of yours—your constitution.

To you who are about to commence the battle of life, it would almost seem superfluous for me to urge on you continued perseverance, for you belong to a race, the very essence of whose success has been its remarkable pluck and tenacity of purpose.

Remember that the man who cannot take a defeat is not fit to win a victory, and do you keep always before you those words which I have seen engraved on a foreign tombstone, but of which I can only give you a feeble translation—

"The reverse of the hour is forgotten, but the glory of a lifetime endures for ever."

Deserve success, but remember that it is not in your power to command it, for the final disposition of all human affairs rests in other hands.

And now, gentlemen, let me say that although the end and aim of your profession is to minister to the ills of suffering humanity, yet do not forget the influence for good which it ought also to have on you. Rightly used, it is capable of conferring on you much improvement of mind and body. But, far above the acquisition of all human knowledge, there are in man's heart things infinitely more precious—there are noble qualities to be tested, virtues to be tried, great feelings to be evoked, and hallowed thoughts to be cherished.

Cultivate, then, all those means which tend to ennoble man and enlarge those better feelings of his heart, without which *he* were a vain conceit, and his path in life a stumbling-block.

KING'S COLLEGE.

ABSTRACT OF INTRODUCTORY ADDRESS.

By Professor W. A. MILLER, M.D., F.R.S.

THE lecturer dwelt on the advantage of note-taking, punctuality, methodical study, early rising, exercise, books, purity of life and prayer. With regard to Sundays, he advised them to make it a rule never to pursue their professional studies on that day. It was sometimes a necessary duty to visit the sick on Sundays, and they might be tempted to think there could be little harm if they should in addition take up some of their ordinary books. There was nothing which more surely brought its own reward than a fitting and reverent employment of the hours of the Lord's-day. But independently of the command given to keep it holy, and of the blessing which always followed upon so doing, it would be found in the long run an absolute waste of time to follow their ordinary avocations on that day. The brain required the solace and repose afforded by the interval of rest from its accustomed pursuits, and it would resume its labours with renewed energy and success when it returned to its six day's work, refreshed and invigorated by the contemplation of higher and holier themes, and by the occupations of the Sabbath. Having made some valuable remarks on the necessity of the study of chemistry, botany, forensic medicine, materia medica, &c., he said the authorities of the college had ever fully recognised the importance of clinical study in the hospital, and various endowments had been instituted from time to time with a view to promote and encourage this practial mode of acquiring the knowledge of the profession. First, there were the clinical prizes, one of which was awarded every winter and every summer session, both in midwifery and in surgery, and for which it was necessary that the candidates should be able to write from memory four cases which had occurred in the wards of the hospital during the preceding six months, as well as to give the substance of two clinical lectures selected by the examiners. Besides these clinical prizes there was the prize provided in memory of Dr. Todd, to secure which, in addition to a report written from memory upon cases which had occurred during the preceding twelve months and selected by the examiners, the student was required to examine and report upon patients who were undergoing treatment in the wards of the hospital. In addition to these prizes, two clinical scholarships had just been founded by one of the earliest and most valued friends of the hospital, Mr. T. G. Sambrooke, a member of the council of the college, under the title of Medical and Surgical Registrarships, tenable for one or two years. No lack of encouragement, therefore, existed there to those who could so far be persuaded to their own good as to devote themselves to the diligent study of disease in the hospital. He would urge upon the students the importance of not neglecting the opportunites of acquiring information afforded by the out-patient department. The comparatively trifling ailments which they would see there were such as would not come before them in the wards; yet they would constitute a very large proportion of the cases which occurred in actual practice, and many accidents, not sufficiently severe to require admission into the house, would afford instruction to the observant and reflective student. In particular they should be careful not to overlook the special instruction which they might obtain in particular classes of disease. As for example, in the treatment of diseases of the eye, which was specially interesting, not only from the importance of the organ, but from the variety of morbid affections to which it was subject, and also from the facility with which, owing to the transparency of the tissues, and consequent accessibility to observation, some of the most important pathological conditions might be watched in their progress towards a destructive or a favourable termination. There, too, they would have the opportunity of studying the varied forms of diseases of the skin, learning to discriminate them, and successfully to treat forms of malady too often the approbrium of medicine in unskilful hands. Here, too, they would study the applications of the laryngoscope, and the new field which it had opened both to the physiologist and to the physician. Nor must they overlook the facilities they would have of acquiring a practical familiarity with the operations of the dentist. No one could tell where his future lot might be cast, nor how valuable such special experience might become. It would be almost superfluous in him to remind them of the duty of courtesy and consideration to the poor sufferers, who in return for the medical or surgical aid afforded them, furnished them with the means of acquiring a practical knowledge of disease. These observations should be so carried on as not unnecessarily to fatigue or to wound the delicacy of those whose maladies they were studying, remembering the precept, "Whatsoever ye would that men should do to you, do ye even so to them." As in the dissecting-rooms they would become familiar with death, so would they in the hospital become familiar with suffering and disease in all its varied forms. In both cases it would require care upon their part lest this familiarity should render them callous and indifferent. There were few things more precious to those who were recovering than sympathy, and often a kind word or a cheering expression from those who were prescribing for the relief of the body, would do more for the patient than the remedy which had been ordered or the bandage which had been applied. Nothing would keep alive in their own hearts this ready sympathy so much as the daily practice of kindness towards others. It should be a part of their plan for each day's work to perform some little act towards another for the express purpose of adding to his comfort or increasing his happiness. It would keep their own hearts warm, and would be one of the best preventatives of the growth of selfishness, and of the hardening influence upon the feelings which the constant sight of suffering undoubtedly exerted. It might seem strange that any one with a knowledge of the extent of the field of study before him, could persuade himself that he could postpone its commencement with safety, and that by a system of cramming for a few weeks or months just before he presented himself to the examining bodies that he could become qualified for the responsibilities of actual practice. No man who acted thus estimated aright either his own duties or the dignity and true objects of

the profession in whose ranks he was proposing to enroll himself. He indulged the hope that none who heard him that day would be guilty of such dishonesty to themselves, such injustice to their fellows, such culpable indifference to the welfare of those who might hereafter have the misfortune to be placed under their treatment as patients. The profession which they had chosen was a noble one, and they should remember that its honour was in part entrusted to their keeping. He would urge them to remember that great opportunities implied corresponding responsibilities, and when the heart was tender they should seize the moment to say a word touching the things which were unseen and were eternal. Few things required more care and judgment than the selection of the time and mode in which it might be proper to warn a patient of his danger. Sometimes it might be done through the intervention of friends, sometimes by a hint to the sick man himself, but the medical man, if he were a man of prayer, would find the occasion and the means. They knew how prone the heart was to postpone the consideration of eternal things, and who could say but that timely warning might be the means of recalling one from the error of his ways, who but for their faithfulness would have gone on in indifference, buoyed up by a fatal and delusive security.

UNIVERSITY COLLEGE.

ABSTRACT OF INTRODUCTORY ADDRESS.

By Professor GRAILY HEWITT.

THE lecturer devoted the chief part of his address to a consideration of the subject of "the Treatment of Disease." Was there, it might be asked, any great law, any simple expression or proposition, which should so far embody the end and aim of medical treatment as to form a safe basis for practice? Was "rational" treatment possible, or must they rely upon empirical treatment? The study of the phenomena and laws of life could only give the basis they required. However, in all we knew of the nature and essence of life itself, and physiology unceasingly told us that the continuance of life was dependant on the fulfilment of certain well-defined conditions—food, light, air—these were indispensables. Failing these, disease and death took possession. Chemistry relentlessly stepped in and distributed to their pristine elements those beautifully original fabrics which peopled the world. Chemistry, for a time the slave of the body, finally became the master. They could not imitate the wonderful process of growth in the body, they could not manufacture a single drop of blood, but this incessant growth created incessant demand for new material; to sustain the vital actions food was required. Here, then, began the work of the physician. Disease might be produced in many ways, and was often the result of injuries, but in the great majority of cases it was distinctively connected with derangement of those processes by which the new material was appropriated by the body to its own uses or to deficient supplies of the material itself. The whole body was in a constant state of change; the individual of to-day had not the same body he possessed some years since. The body must indeed be guarded from deleterious influences, from injury, from noxious miasmata, from the thousand and one enemies to whose attacks it was exposed, but unless the aliment with which it was supplied were good, and fit, and sufficient, disease must sooner or later result. The necessity for food, of course, all admitted; the proposition that many diseases owe their origin to defective supplies of food was not novel, but did they adequately recognise it as a fundamental principle in the treatment of disease that food was the most powerful of remedies? Was not this the principle of which they were in search? They wished to avert death. To expel the disease from the body was a laudable object indeed, but still not the first. They must save the body at all costs from death. Let them not imitate the medical enthusiast, who, in curing the disease, destroyed the patient, and could only comfort himself by exclaiming, "Il est mort guèri." In their battles with disease it was mainly a question of supply; the best prescriptions would be useless if the life were not supported by food. To give the nutritious treatment, as it might be termed, its proper place, was not to depreciate their proper resources. How much did humanity owe to surgery! But the activity of the surgeon would not avail if the strength and vitality of the patient were not preserved. The cordage of the ship must be kept in order, but the sunken rock towards which the vessel was rapidly drifting, and which threatened the whole fabric with destruction, they must, at all events, keep clear of that. Again, as in the obstetric department, where manipulative skill was often eminently serviceable, diseases were encountered whose rapidly fatal tendency was only to be averted by free and liberal administration of nourishment. Nor was it intended for one moment to undervalue the assistance they derived from drugs. They enabled them to bear pain, to alleviate suffering, sometimes absolutely to cure disease. The scepticism which had of late years replaced the old, implicit faith in drugs was, thanks to the further progress of medical inquiry, giving, in its turn, place to a more accurate and precise estimation of the power and effects of drugs on the economy, from which the best results might be anticipated. Other remedial measures, climate, exercise, baths, &c., had an unquestionable effect. But they were still subsidiary, and let it be remarked that their influence was so triumphant because they promoted healthy nutrition. They facilitated the changes in the tissues, increased the demand for food, and promoted its assimilation. The tendency to death, with some few exceptions, was by way of exhaustion. The natural forces were greatly weakened, another slip downwards, and life was gone. The mechanism of the body being intact, the restorative powers of food were great to an almost incredible extent. When, as often happened, nature called for food, the indications were plain enough, but when appetite was gone, consciousness well nigh extinct, a knowledge of the extraordinary remedial action of food was of vast importance. To place within the alimentary tube something which it might readily take up, and which the body might, with what little power was left it, convert into new force—to do this at the right moment and in the right way—was often an exercise of the highest skill. The body was thus enabled to retain—though it might only be for a short time—its hold on life. These considerations and facts led them to attach so much importance to skilled surgery. The greater success of medical treatment of late years was a good deal owing to increased attention in this particular. The importance attached to good nursing by those who had professional experience was to be regarded, indeed, as indicative of this growing trust in the curative power of food, for the regular and skilful administration of food was one of the chief duties with which the nurse was entrusted. Prevention was better than cure. A vast number of deaths were due to diseases which owed their origin to defective nutrition. Consumption in its many forms and disguises appeared to be connected in the main with want of food. What had been observed as to the marvellous power of the nutritive treatment in arresting its progress enabled them confidently to expect that, applied earlier, the disease might be prevented altogether. It was in childhood and youth that the changes in the tissues were most rapid, that growth was most evident, and at that time also material was required in greatest quantity. Disastrous results must sooner or later follow if during the period of rapid growth food was insufficient. Parents had their own ideas on the bringing up of children, and doubtless in the future one great feature of their profession would be more systematically called into exercise, that of regulating the supplies of nutritive material during these most critical periods of human life. Further, the great and evident curative power of the nutritive treatment when the changes were rapid gave them an indication as to what might be expected, though now slowly, in effecting changes in the diseased organs of the body later in life. So long as life lasted they might hope to effect something. Physical diagnosis, which had of late years attained so great a degree of perfection, would in future aid them materially in appreciating the progress of remedial changes. Sanitary science, occupied chiefly in protecting the body from assaults without, had, of late years, done much, and there was much for it yet to do; but a yet wider field for work appeared to be open to medical art in the regulation and adaptation of food, with the object of effecting radical and curative changes in the diseased tissues of the body. Medicine did not end there; that was but the basis or foundation of the edifice.

Original Communications.

ON THE TREATMENT OF DELIRIUM TREMENS BY CANNABIS INDICA.

By JOHN BEDDOE, B.A., M.D., Etc.,

PHYSICIAN TO THE BRISTOL ROYAL INFIRMARY; CONSULTING PHYSICIAN TO THE BRISTOL HOSPITAL FOR SICK CHILDREN.

IN the MEDICAL PRESS AND CIRCULAR for March 13th, Mr. Tyrrell, of Jervis-street Hospital, recorded a case of delirium tremens which he had successfully treated with

tincture of cannabis indica. The use of cannabis for this disease seems to have been previously unknown to Mr. Tyrrell, and, as it is probably equally so to many of your readers, my experience in the matter, which has been pretty extensive, may prove interesting, and perhaps even valuable; for cannabis is, in my opinion, preferable to opium in many other cases besides those in which the patient has been addicted to opium-eating like the man treated by Mr. Tyrrell.

Delirium tremens is exceedingly common in Edinburgh, and the frequent opportunities of treating it have suggested to the local physicians certain deviations from what may be called the orthodox plan of medication. Thus, Professor Laycock, I believe, eschews both sedatives and stimulants as a rule, and Dr. Peddie prefers antimony to any other drug.

During part of my term of office as Resident-Physician in the Edinburgh Royal Infirmary in the years 1854-55, I happened to have the entire control of what was commonly called the "D. T. ward." Having previously seen some cases in which opium had appeared to disagree, and thinking, from what I had learned from Prof. Christison of the mode of action of cannabis, that it would probably act as a hypnotic without lessening elimination, I prescribed it in the first case that came under my hands, and the result was so encouraging that I repeated the experiment. During six months I had, I believe, as many as eighteen cases of delirium tremens. One of these being suspected of meningitis, was treated with antimony; and two other patients, being very unruly, and absolutely refusing the nauseous draught of tincture of cannabis, got opium by mouth or rectum; but to all, or almost all the others, so far as I can recollect, cannabis was administered, and with highly satisfactory results. The only one of the whole series who did not perfectly and speedily recover was the one who took antimony; he was an Englishman, and was after a time removed in a half imbecile condition to the poorhouse of his native place.

Most of the comparatively few cases of delirium tremens that have of late years come under my notice, in the wards of the Bristol Infirmary, I have left to the care of the house-surgeons, thinking it reasonable that those who, by the necessities of the case, must direct a great part of the treatment, should have the responsibility and management of the whole. Two or three, however, have been treated on my plan, and with good effect.

Now for a few words, firstly, on the form, and secondly on the manner of administration. The tincture is preferable to the extract for its rapidity of action; but it is (*experto crede!*) extremely nauseous, and some patients refuse it, or require much coaxing to induce them to swallow it. Of late I have given the extract, made into a pill, with an equal quantity of sulphate of potash, the hardness of which makes it suitable for finely dividing the resinous extract, and thus hastening its solution or suspension in the gastro-intestinal fluids.

I usually begin with a grain of *good* extract, or twenty minims of the tincture; wait from four to six hours, and then, if the patient be awake, give a double dose. If this also prove fruitless, six hours later I give three or even four grains; then allow six or eight hours to pass, and, if necessary, try a yet larger dose. Longer intervals are needful for extract than for tincture. In one case I proceeded as far as two drachms (= 6 grs.) before the patient succumbed to the hypnotic influence; he slept several hours, and awoke almost well. This plan I think far better than the ordinary one of giving moderate doses of a narcotic every two or three hours, whereby a second or third dose is introduced before one can tell whether the first would not take effect. Moreover, in the case of opium at least, a succession of small doses is apt to stimulate instead of sedating the patient. I have always given as much soup, milk, and other digestible food, as the patient's appetite and stomach could receive (cannabis does not dull the appetite as opium often does;) and have never given alcoholic stimulants except when the quality of the pulse distinctly indicated them.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. VIII.—CONCLUDING REMARKS ON TREATMENT OF THE "GENERAL HEALTH."

In the commentary on the "General Health" I have stated generally my ideas on that subject. I have pleaded for a more careful examination of the antecedent history of the patient, as also of the actual state of the body at the time. I have impressed the necessity of patience in allowing the patient to tell his own story, before you proceed to examine for yourself; when this begins, I have suggested the avoidance of leading questions, and, no doubt, after these or any other suggestions which I might add, a great deal must always be left to the comparative ability and patience of the examiner. If a man is in great practice (and I am only speaking of difficult cases just now), and he cannot spare the time at the moment, he had better make an appointment when it may be more convenient, should the case admit of that delay. Again, I would respectfully suggest, that if he cannot see his way clearly after his examination, he should take a little time to consider the facts—he need not be ashamed to do that which was necessary to a man like John Hunter.

Many years ago, I put into a tabular form the principal points for enquiry in cases in general, to which might be added anything suggested by the particular accident or disease under examination. I was glad to observe that the general heads of that table have been inserted, amongst other matters, in the special researches of a very industrious observer.

The table comprised—the age, place of birth, soil, water, or other peculiarity, present and former occupation, diseases or accidents, and treatment, when known. History, including that of father, mother, and other blood relations. The various organs and the state of the functions as known, together with a special summary of any injurious influences to which the patient might have been at any time exposed. The treatment stating what diet, exercise, or medical or surgical measures employed, and the order in which any change might have taken place in relation to any remedial measure. Whatever organ I select to act on, I endeavour to make my views and objects perfectly intelligible to the patient. I then, in my own mind, divide his treatment into two parts:—1st. To endeavour to detach him from his habits, or any other circumstance which I think may be hurtful to him, or which if not positively hurtful, may be doubtful, unnecessary, or calculated to fog the clear investigation of the nature of the case or the effects of treatment, under one or other of the implied grounds. I usually begin, by interdicting anything that I regard as really unnecessary. Cases are of course difficult, in regard to their real dependencies, in proportion as the agencies to which they are exposed are unnecessarily multiplied. A great deal of the difficulty in cases results from people being allowed to eat or do various things, simply because it is imagined that they do not affect the case. If you are entirely unreserved, your patient will at first submit to any injunction which he may consider a privation very willingly, but which he may, if you delay it, hesitate in doing, or imperfectly obey. I have often been asked how I got on with a case where there seemed to have been no difference in the treatment. I have found that the difference really existed only in such *definiteness* and *simplicity* of plan, with the exaction of more implicit obedience to my injunctions. Again, I never make any concession as to the resumption of this or that habit whilst the patient is under treatment. I can assure the reader that I have known very dangerous and even fatal consequences follow very rapidly, on concessions that were thought harmless, and in

those who had been under my care, but to whom I had refused the concessions in question. As to what is unnecessary that of course is different in different cases. In diet I usually forbid or place great restrictions on all saccharine and fatty matters—1. Because I know that most people eat too much of them ; 2. Because they are the chief elements of what are called rich dishes ; 3. Because there is quite sufficient of these in lean meat as ordinarily eaten, in bread, potatoes, and many other things ; and lastly, because any excess of these matters tends to load the liver, which it is, in all cases, most desirable to keep in good condition.

Some people have habits about which you may have your doubts, and who claim the continuance of them as harmless indulgences. Here I have got my patient submissive by asking him what he would think of my treatment if any part of it were such, that I could give him no better reason than because he liked it, whilst I thought it certainly unnecessary and *possibly* hurtful. I do not find that, on the whole, patients are untreatable, but you must let them see that you are in earnest ; that your duty does not simply consist in taking a fee and prescribing, but in feeling that you have a responsibility which allows of no compromise about which you have any doubt. You may, occasionally, lose a patient, but I very much doubt whether you will lose in the long run, as the phrase is, whilst I am sure you will be adding your mite in support of the real dignity and proper position of the profession.*

In your prohibitions there is considerable room for discretional differences. In some cases an absolute and immediate interdiction of a habit, whether of diet or mode of life, is necessary, in others a gradual weaning from it is more advantageous. I have, in weaning a man from the abuse of alcohol, begun by allowing him a pint of rum daily. In the abuse of laudanum, at first it may be necessary to commence your restrictions by that which would be a poisonous dose to any other individual. So in regard to rich living, delicately stimulating diet, excesses in saccharine or greasy matters, it is often necessary to give a patient time. The stomach, accustomed to unnatural excesses, will hardly digest anything if you strike them all off at once. There is, of course, plenty of exercise for discriminative application of every principle, but if you make up your mind that a thing is hurtful or even unnecessary, use your own method according to the suggestions arising out of the peculiarities of the case.

I attended a nobleman who never had implicitly obeyed anybody, but I obtained his entire confidence by at once telling him that if he were to cover my room with guineas I would not attend him, unless he implictly obeyed my injunctions. He said, angrily, I have never been talked to in that way, sir ; he paused, adding, but now, sir, I will never consult anybody but you. Amongst other things he ate immoderately of sugar. After stating my eason for interdicting it—the composition of sugar—I requested him to put in a tumbler the quantity of sugar he usually took in a day, and I then decomposed it by sulphuric acid. Well, he said, I shall not eat any more sugar.

In another case, to exemplify what excessive habits one meets with occasionally, I said to a man of rank, your habits are all wrong ; will you give me them for a day or two, from breakfast onwards. That he did. One of these days beginning with a basin of turtle soup and a pint of *curaçoa* ! !

In every case where the locomotive powers of the patient allow its possibility, I enjoin exercise as a *sine qua non*, and take pains to accommodate it, and very restrictively to the patient's general powers, with such measured increase of it as his progress admits of. I have in this way succeeded in making people take very efficient exercise who scarcely took any at all. I recollect an old lady of seventy-one years of age, who consulted me for a very serious disease, and who began her address by saying why she had consulted me, adding, amongst other reasons, that she had heard that I would tell her plainly, whether I could do her any good. A long examination of her case completed, I then said that if I knew what sort of a woman she was, I could give a pretty good guess whether I could be of service to her. She smiled, and added, "I dare say that is often important." "Well," said I, "can you take exercise ?" "No," she replied, "I never take any out of the house." "Then," I rejoined, "that settles it ; I can do you no good." "Oh," she replied, "I must walk." Now, in a few weeks, this lady could walk eight or ten miles, to use her own words, as well as I could, and with such success, as regarded her case, as sent me several patients.

My impression is, that nothing like the necessary pains is taken in regard to exercise, either in insisting on the necessity of it, or in such graduation as the great varieties in patients renders absolutely necessary to obtain the advantages derivable from it. Neither do I believe that either medical men or patients *generally*, have that natural conviction of the efficacy of exercise, *when properly adjusted*, as experience justifies. In fact, it is worthy of much more study than is generally given to it.

Variations occur as to time, mode, degree, clothing, period of the year, all of which amply repay, in individual cases, any attention which can be given to it; but, whatever a man's experience may be of any disease, or of any remedy, it is, in my view, an excellent plan, to superadd to any amount of experience a careful enquiry into the peculiarities of the individual.

I always endeavour to have exercise apart from business if possible, to have it so continuous as to act mildly on the skin, as I tell people I do not like to work the head and the heels at the same time. Horse exercise is good, but scarcely ever a substitute for walking. I have known people lose all the advantages they might have obtained from riding on horseback, because they gave up walking exercise as unnecessary. In selecting any organ to act on, I am, as I have before observed, guided, not by symptoms merely, and sometimes not at all, but by the injurious influences to which the patient has been exposed, when such are developed by his history and habits. I then take the best means I can of ascertaining what evidence is furnished by the secretions of the organ selected, and note the difference, if any, which may result from any medicine that I may prescribe to excite its actions.

Sometimes we will say that we find some organ inexplicably active—that is to say, that the organ is secreting too profusely or too readily, or both, without what in a really healthy condition would be considered a naturally sufficient cause. Well, if I can find nothing in the patient's habits which explains or suggests an explanation of this, I assume, for the time, that it is acting in compensation of some other organ which is not so fully performing its office. I then, supposing, as I have said, there is no reason to suspect inorganic disease in the organ selected, take that which, I think, has usually the greatest community of function, or which every experience may have suggested as most ready to transfer its functions to the organ which is evincing the activity in question. Now, the manifestation of sympathy is so different in different individuals, that it is not possible to generalize as to what organs this play is exemplified in most frequently; and again the experience of different individuals may have led them to different results, and yet in their respective experience both may be true. I think I have more frequently observed, excess of secretion as a compensating function in the skin and kidney than in any other organs, and especially in compensation for diseased or disordered liver.

I have no disposition to relate cases, but I ought, perhaps, to mention the following :—A gentleman was brought to me by his brother (a medical man) who had been variously treated without any success, to know whether I thought anything could be done. His case was regarded as one of disease of the liver and kidney. He had a very hard and much enlarged liver, looked very sallow and ill, and he was passing such urine as I had

* I could give my young readers very good proof that strictness with patients is not prohibitory of progress. I knew a man who was as strict as I could desire, and who, without any prestige but industry, was doing at thirty as good a practice as any surgeon of his age in London.

never before seen. It was nearly black in appearance at first sight, but on looking at it more carefully, it was more like porter, with a deep tinge of yellow. I carefully examined the case, and I thought there was possibly no disease of the kidney, and that organ acting in compensation for the liver, appeared to me to be the only source of hope, but I gave the brother a very unfavourable prognosis ; in fact, I did not expect that the patient would recover. He was going into the country, and I prescribed such measures, hygienic and medical, as his case appeared to justify, but no medicine beyond occasional mild excitants to the bowels. I was astonished, about six months after that, to hear that he was still alive, in another short period to receive a basket of game of his own shooting, and a few months after that, with a visit in person to thank me for my advice.

You ask a patient how his skin acts, and he will perhaps say, Oh ! that is all right, I cannot hardly do anything without getting into a profuse perspiration. Or his kidney, Oh ! he says, I pass a great quantity of water, but I have no pain ; well, you desire to know why this is, and of course you will find various explanations in different cases; but, putting aside those who are simply plethoric, and who, as Sidney Smith said, have eaten a few waggon loads too much, you will often find in the two cases that I have cited, that the liver is the offending organ, and that the skin or kidney is acting in compensation. At the same time I cannot here be too explicit, the laws of sympathy are such, that there is no doubt that, as the rule, the symptoms are not in the same site as the cause ; still, one never takes this for granted. Suppose I find something going wrong, say in the respiratory organs, well, I know from undoubted facts of experience, that the respiratory organs are often secondarily affected by influences which have acted primarily on other parts. In the case supposed I am desirous of knowing whether these organs are primarily or secondarily affected, you must take nothing for granted without evidence. Whatever faith you may have in a generalization, never fail to go over the evidence of the case before you, to see if it falls under the generalization in which you may have usually and justly confided. Well, you measure the chest, and see whether it is of average bulk and not distorted, you inquire if your patient has been subject to any malaria, either chemical or charged with material or mechanical pollutions, you examine the history of his family, this inquiry affords you no evidence you say of any injurious influence directed primarily to the lungs. You find, however, that he has been careless of his skin, either as to cleanliness, clothing, undue exposure, &c., or you may find that his mode of life has been careless, or, perhaps, improper, and yet not involving any extraordinary excesses, there you will be probably safe in inferring that the affection of the respiratory organs is secondary, and if he is a patient whose conduct you can depend on, I should not care what his disease was. The question with me would be the quantity of breathing surface left unimpaired, and the indefatigable observance of proper treatment on the part of the patient, such cases even in my experience, which here is necessarily limited, will do well, if treated through the primary organ. But there is great caution to be observed in such a case.

I was consulted in a case of that kind, where the primary organ was clearly the liver, and when the disease of the lungs had entirely subsided, not only in my opinion, but in that of a physician who is reported to pay special attention to such cases.

He thought, however, that a (strengthening?) regimen was necessary, and allowed bitter ale and a little champagne, prescribing cod-liver oil; as, if my views had been right, this seemed to me entirely wrong I objected to the plan. In consequence, I suppose, of my published views of certain functions of the lungs, the family pressed me very much to continue in the case, but I declined. The case terminated as I predicted, except that the poor lady died some months earlier. She first, they reported, got fat, then had another attack, from which she succumbed. The body was not examined, so I cannot state what might have been the condition of parts, at least I feel the impossibility of laying down rules for examination of cases in a digest of this kind. Abernethy justly observed, "Lectures will never make surgeons." Here is a case extraordinarily illustrative of what may be done :—One day whilst I was sitting at the dispensary, some medical men who occasionally honoured me with a visit, asked me what I meant by treating by the sympathies. Oh ! I said I will show you. The very next one that came in was an elderly woman, with an enormous ulceration of the skin, occupying the whole leg from just below the knee to the ankle. She had a full hard liver, and had been in the dispensary a fortnight, her leg being poulticed, a plain diet, and a mild aperient taken as required. Her tongue was foul; skin active. I observed that the skin was active, probably in compensation for the liver, which I had no confidence in, because of the evidence of organic change. Now, said I, the skin has to heal that enormous surface whilst it is acting otherwise liberally for the reason I supposed. There is no evidence of disease in the kidney, therefore I can make the kidney a little more active. I may advantageously relieve the skin in its reparative labour. She was accordingly ordered mild doses of nitrate of potash to her treatment twice or thrice a day. The result was wonderful and surprised me no less than others, as the whole enormous ulcer healed in eight days. I have said so much about individual organs in my book on "Tumours," that I cannot say more here without repetition.

I attach great importance to cleanliness and excitation of the skin. This, like all other things, requires discrimination. The means I employ, according to the patient's susceptibilities, and previous habits, are shower baths of varying temperature, warm bathing, and vapour bathing. Occasionally, you find the ordinary healthy habit of cold bathing in the morning, too much as people advance in life, and benefit even from changing it to tepid. For warm bathing I generally prefer vapour. I used to attach a good deal of importance to medicated vapour, as by sulphur and chlorine, but I am not so secure about the superior excellence of such vapours to ordinary steam. In many cases where I could not readily command medicated vapours, I think I have obtained as much success from the ordinary kettle and pipe, which I call my poor man's kettle, from having used it so extensively in dispensary practice. I always enjoin friction after the bath, and as much expedition in conducting it as practicable. In delicate skins, and in children, when rough rubbing cannot well be borne, quickness of hand is the best substitute. In all affections of the mucous membranes, attention to the skin is extremely important. I shall presently have an opportunity of giving an illustration, too, but I am reluctant to speak of any organ as specially important, because, according to the principles I would submit, the really important thing, whether in the examination or the treatment of a case, is an indefatigable circumspection, and that patient enquiry into the antecedents and present condition which recognises no one thing paramount so much as an exacting and discriminative examination of all. I know not whether I can speak better anywhere than here, of the advantages of dry cupping. I have elsewhere stated, a great many years ago, my opinion of the advantages of it, and of the determination to the surface to which it so advantageously ministers. It may be continued for almost any time, and often is of great effect in drawing blood from the part in cases where it would be little short of destructive to take it from the body. It will be gathered from this and the preceding commentary that I have nothing special in relation to syphilis. The mode in which I select organs has been in general cases sufficiently disposed of, and I have no space for details. As regards the skin there is no class of cases which renders the treatment of that organ more important than disorders of the mucous membranes and the canals they form, on which I propose to offer a few remarks in the next commentary.

Hospital Reports.

LONDON HOSPITAL.

LIGATURE OF IMPORTANT ARTERIES.

Under the Care of Mr. MAUNDER.

Some months ago Mr. Maunder suggested the application of a ligature to the superficial femoral artery to arrest threatening suppuration in a case of lacerated wound of the knee-joint. The effect of the operation was of immediate and lasting benefit to the patient. Lately, three cases of ligature of arteries, of great interest, have been under his care: *one*, is that of a young man who accidentally punctured the femoral artery in the middle of the thigh. The wound in the soft parts was at once enlarged till the hole in the vessel was seen, and then a ligature was carried round the artery, both above and below the aperture, and hæmorrhage ceased. The patient is convalescent. The *second* case is that of suspected innominate aneurism, admitted under the care of Drs. Davies and Sutton. As a forlorn hope, Mr. Maunder put a ligature upon the third part of the subclavian artery, and also upon the common carotid artery of the same side (Brandon's method), with only small prospect of success, the patient having postponed the operation until the aneurism seemed to be almost on the point of bursting. The man died on the sixth day from the operation. The *third* case is that of a male adult, the subject of inguinal aneurism, for the relief of which Mr. Maunder put a ligature upon the right common iliac artery. Gangrene of the limb followed, and the patient died on the sixth day subsequent to operation. These two last cases are examples (as Mr. Maunder remarked at the time) of disease threatening soon to destroy life, unless relieved by operation, but yet the chance of success by operation is poor indeed. Still, the surgeon must do his duty, and give the patient a chance.

UNIVERSITY COLLEGE HOSPITAL.

GUNSHOT WOUND OF THE CHEST.

THE VICTIM OF THE HOLBORN OUTRAGE.

Under the care of Mr. ERICHSEN.

Edwin M'Donnell, æt. 23, was admitted between one and two A.M., Sept. 28, in a state of slight collapse. Pulse weak, small, 136. Countenance pale and anxious. He gave an account of the outrage such as has already appeared in the daily papers, and confirmed in every other respect. The orifice of entrance was situate below the fifth costal cartilage, close to the edge of the sternum. The depressed condition of the edges was at once remarked. The orifice of exit was on the same side at the back of the thorax, near the inferior angle of the scapula. The edges were distinctly everted. No hæmorrhage from either wound, and very little blood had previously escaped.

Mr. Heath was sent for, as Mr. Erichsen was away from home, and arrived in about half or three-quarters of an hour. It was now noticed that air escaped from the wound in front, thus demonstrating that the lung had been penetrated. Dyspnœa; pain on inspiration; no cough nor expectoration; percussion clear all over side; breathing diminished. Pads of lint placed over the two wounds, and broad strips of plaster applied round the injured half of the thorax. Fifteen drops of laudanum prescribed. The bullet was found by the house-surgeon, Mr. Shoppee. The clothes had been penetrated in front, but not behind.

6 A.M.—Some little bleeding from front wound.

During the day he dozed at intervals. Pulse ranged from 100 to 110. There was a good deal of pain and dyspnœa. Slight thirst. No cough nor expectoration. The dose of laudanum was repeated at night.

Sept. 29.—This morning he is evidently worse. General pyrexia; pulse 100; respiration 40. Has coughed up a quantity of thick bloody matter. Milk and beef-tea diet. Four ounces of wine.

℞ Liq. ammon. acet, ℥ss.
Tinct. camph. comp., ℥ss.
Mist. camph., ℥i. M. ft. haust.
6ta quâque horâ sum.

The following is the state of the chest as reported by Dr. Wilson Fox, at the mid-day visit:—

"Respiration over whole chest above mamma bronchial; below third rib it is very weak and distant; above this it is more marked, and moist râles are occasionally heard. The axilla is dull throughout; the tympanitic resonance stands one finger's breadth to left of sternum through whole length of sternum to fourth rib. Heart's impulse is diffuse, and is most felt against fifth rib, just within nipple line; vocal fremitus suppressed on right front, also vocal resonance. There is apparent falling in right front of chest, and total absence of expansion. Pulse 96, full; respiration 32."

The dose of laudanum to be repeated at night.

30th.—Has had some sleep and seems more comfortable. Pulse 92 to 98; respiration 28 to 36. Has coughed up more bloody matter. Mr. Erichsen visited him to-day. Dullness on percussion all over right side up to third rib, and breath sounds absent. Above this line, percussion tympanitic, and respiration tubular.

October 1st.—Slept tolerably well. More bloody expectoration. Cough only slight; pulse 100; respiration 28. In the evening the pulse rose to 112, and intermitted the respiration to 34. The laudanum was repeated.

2nd.—Much the same. Bowels relieved by an enema. In the evening he became restless. There was profuse perspiration. The pulse rose to 120, and the respiration was 32.

3rd.—Passed a poor night and seems more distressed. Pulse risen to 132, and respiration to 44. He got worse, and, in the evening, vomited.

4th.—Although he has passed a better night, is evidently worse. He sank rapidly, and died about half-past two, as reported in our last issue.

Post-mortem made twenty hours afterwards by Mr. Erichsen, in presence of Drs. Kerin and Spry, of 2nd Life Guards. Cavity of right pleura nearly full of dark bloody liquid. Three pints of this were collected. Clots and masses of lymph floating in the liquid; adhesions in various places; surface covered with fibrin. The ball had passed through the base of the right lung. The ribs had escaped injury. When laid open, the track made by the ball was irregular and black. The inflammation had almost obliterated the orifices from within. The opposite lung was congested at the base. A little fluid was also found in the pleura.

On opening the pericardium nearly an ounce of dark fluid ran out, and some flakes of lymph were seen floating in it. There was some adhesion posteriorly.

Review.

THE JOURNAL OF CUTANEOUS MEDICINE AND DISEASES OF THE SKIN. Edited by Erasmus Wilson, F.R.S. Vol. I., No. 3. October, 1867.

The *Journal of Cutaneous Medicine* promises well; and if the interest which has hitherto been manifested as to its welfare by its contributors should only continue, Mr. Wilson will have accomplished a most unusual literary feat in the history of our profession.

The reader will find Mr. Wilson's third lecture on the Pathology of the Skin particularly well worth reading; and the contents of the other papers will be found equally interesting.

The first is an amusing and curious essay on Terminology by Mr. Hoblyn, the widely known author of the "Dictionary of Medical Terms." The second is a paper by Mr. Wilson himself on the Statistics of Cutaneous Diseases in the Middle and Higher Ranks of Life. The third, by Edward Woakes, M.D., discusses the Correlation of Cutaneous Exanthema with Neuralgia. The fourth, by Dr. Belcher, contains a lengthened

and minute "Account of the Recent Purpuric Epidemic in Dublin, and other parts of Ireland; particularly as regards its Cutaneous Aspect;" and our readers will see in it frequent references to, and quotations from, papers and reports, which originally appeared in this journal, and which excited so much general and professional interest at the time of their appearance. The fifth paper, by Dr. W. H. Day, contains a report of five cases of Herpes Zoster. The sixth, "On Certain Unusual forms of Vesicular Eruptions," is from the experienced pen of Mr. Milton. In the seventh, Dr. Morris Wilson treats of the early records of Ichthyosis, or Porcupine Disease. In the eighth, Dr. Henry Purdon gives some cases of Prurigo; while Dr. McCall Anderson, in the ninth paper, furnishes us with a case of Ephidrosis Cruenta, or Bloody Sweat, and remarks on it with his usual clearness. The lover of the curious in medicine will find ample means of indulging his taste in reading this paper. The tenth and last of the original communications is a good paper "On Delhi Boils," by R. S. Sisson, M.D.

Several reviews, clinical and miscellaneous memoranda, are also to be found in this number, on the appearance of which we congratulate Mr. Wilson and his colleagues.

Registered for Transmission Abroad.

The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 16, 1867.

ON MEDICAL TERMINOLOGY.

"We call a nettle but a nettle; and
The faults of fools but folly."—*Coriolanus*, ii., i.

THE above most appropriate motto from one of the great works of our great dramatist, forms the text of a very readable and interesting paper on "Terminology," in the current number of Mr. ERASMUS WILSON'S well-edited *Journal of Cutaneous Medicine*, to the contents of which we have more particularly adverted in another column. The paper in question is from the pen of Mr. RICHARD HOBLYN, the well-known author of "The Dictionary of Medical Terms," and it refers chiefly to the almost inextricable confusion into which writers have plunged what is now called "Dermatology"—a department of our Profession which bids fair to be entirely incomprehensible to the ordinary physician or surgeon, if the now too common system of multiplying hard new names, and using familiar old ones in many different senses, be not speedily put an end to. This seems to have been a principal object with Mr. WILSON in establishing his journal, above referred to, for in the first number he thus expresses himself on page 107:—"Several of our contributors allude to the perplexity arising out of the unsettled state of dermatological nomenclature. Dr. M'CALL ANDERSON expresses our own deeply felt conviction, when he protests against the 'unnecessary multiplication of names and forms of disease.' And the papers of HEBRA, Dr. TILBURY FOX and Dr. BELCHER, illustrate the same difficulty. We can only say that we shall use our best exertions to correct this great evil, and endeavour to establish, on unquestionable grounds, an universal nomenclature."

We hope Mr. WILSON may be able to effect this great desideratum, but, meanwhile, let us return to Mr. HOBLYN'S paper on the same subject.

A student rejoicing in the idea that he knows a little Greek and Latin, meets with the word *melitagra*, concludes that it denotes a *honey seizure*, and hence, that it has to do with bees. "Referring, however, by accident, to the work of an eminent dermatologist, he reads, to his amazement—*melitagra*, an exudative disease, emitting a discharge like honey; one of the symptoms of eczema pustulosum, vel impetiginodes of the face." The same student meets with the word *mentagra*, and concludes that, according to its literal meaning, it must signify *chin seizure*. "Again, he is astonished—perhaps by this time amused—at finding his suspicions well founded. *Mentagra* is a 'rough, fig-like excresence, occurring on the chin,' simply expressed by its pure Greek synonym *sycosis* or figiness." The mere classical critic will be further astonished at learning that the vegetable parent of this *mentagra* appears under the most alarming of botanico-dermatological designations, *mentagrophyton*, literally *chin seizure plant*. Mr. HOBLYN next refers to *trichosis*, a term applied by Dr. MASON GOOD to diseases of the hair. This word, however, simply means *hairiness*, the cure for which is the razor; and, by analogy, the cure for *dermatosis* can only be found in the unpleasant operation of flaying. Further, we find half-a-dozen terms used to designate the loss or impairment of the cerebral faculty of speech—*aphasia, aphemia, alalia, aphthongia, aphthenxis* or *aphthenxia*, and *aphrasia*—all derived from Greek words, and bearing pretty nearly the same meaning. On this Mr. HOBLYN very properly remarks:—"But the first [aphasia] is classical, and therefore legitimate. Why not discard the other five?" He objects to the use of the word *embolism*; since *embolisma* means that which is put in; a patch; and denies that the term can properly represent or suggest a *thrombus* or clot, disintegrated into minute particles, which are arrested in the capillary circulation. A tooth ache is to be instantaneously cured by an "*odontalgic* application;" the literal meaning of the word *odontalgic* being that that which *causes* (not relieves) the pain. "Spottiness of skin is compared with the integument of a calf, as if one calf in twenty had a spotted skin, and as if, in the twentieth supposed case, its mother had not been spotted before it." We find the following synonymous of *hydrophobia* in use: *hygrophobia*; *phobodipsia*; *pheughydros*; and *brachyposia*. Now if hydrophobia be a sufficiently good name—and it is so—why use any other?

Mr. HOBLYN concludes his racy essay thus:—"It is easy to find fault, easier, perhaps, than to suggest a remedy. But a remedy may be found. *Nil des-*

perandum. Hercules cleansed the Augean stables, and the rising generation may cleanse the literary impurities of their profession, *if they care to do so.* Indifferentism is the real antagonist. Let a Reform Bill be introduced; appoint a committee; and let it be an 'instruction'—an instruction not to be cancelled or truncated by cross purposes—to proceed at once to action. Summon the whole rank and file of *hybrids*; tell them that they have long disgraced their profession, and that their services will be no longer required. Cut off the Greek *itis* tail of every Latin straggler, and tell him to repair the loss from his native resources, or make away altogether for his foreign rival, lay down a law of 'heads and tails,' prefixes and affixes—a law as stringent as those of the Medes and Persians,' and provide that, in future, no one shall, under a heavy penalty, venture to introduce an exotic, without having ascertained its nature and capabilities. Do all this, and the scandal may cease to exist; but neglect it, and it is no difficult matter to foresee that, even in these days of progress and enlightenment, the stable will presently defy the labours of Hercules himself." Archbishop Whately used to insist that much controversy could be saved, were controversalists first to determine the meaning of certain terms used by them. We hold that this wise remark may be aptly applied to medical terminology.

THE LATE MR. PROPERT AND HIS DETRACTORS.

The man whose persevering industry raised him from the position of a "poor Welsh apothecary" to be the founder of the Royal Medical Benevolent College, and through that the benefactor of many a widow and orphan of his untimely deceased professional brethren, so long as the institution shall last, needs no monument to perpetuate his name.

For more than a generation, he who had commenced his career in a humble sphere, had been well-known as the successful Metropolitan general practitioner, and his house was the *rendez-vous* of many bent on serving the poor and friendless. The college he lived to see thoroughly established, was the crowning work of his life, and the energy devoted to its causes was as self-sacrificing as it was ardent. His labour in this work can never be known to more than a small circle, and yet enough was perceptible to the whole profession to render his name synonymous with devotion to the widow and fatherless.

In many a walk of life so much untiring labour would suffice to lay the foundation for immense wealth, social influence, and even fame, but medical men do not look for such large fruits as others, and Mr. Propert reaped enough to be pronounced successful.

It might have been expected, that now he rests from his labours, none would be willing to speak of him as other than the honoured benefactor of his poorer brethren. *De mortuis nihil nisi bonum*, may be pleaded for those who have left no marks behind them. How much more should private rancour hesitate to give expression to its venom in presence of such a monument as this? Yet it is otherwise. Well may the public give us credit for quarrelsomeness when we cannot bury the benefactors of our poor without unseemly disputes. Well may we blush for our order, when accredited organs, under pretence of writing an obituary, indulge in cruel slander on the dead, and make their virtues the stalking-horse for petty political cant.

We regret that anyone professing to be an "impartial biographer" should have felt it consistent with his duty to hold up what he is pleased to term, Mr. Propert's "characteristic faults of intellect and character" to public reprobation, and in illustration, to furnish us with the bare assertion that "in one unfortunate case, entering on the matter without due enquiry, he carried it through, spite of reason or of good feeling." Questions long since buried ought not to be revived for such a wanton attack as this. But the writer is still more unjust in the next sentence, for without the same excuse he goes on to reprobate Mr. Propert's "share recently in persisting *after his eyes were opened*, in publicly assisting in presenting a testimonial to one who had been tried and condemned before the bar of a professional society, and *by the common opinion of the profession.*" We take the liberty to place the most astounding phrases in italics, and to ask the profession whether it is not a disgrace for them to appear in a medical journal? A biographer who could thus write of the founder of the college at Epsom as soon as the grave closed over him, might naturally give vent to his personal strife with any one elses. Whatever differences of his opinion may prevail there is no excuse for this.

If one journalist mistakes his own voice for that of the profession, the delusion may be for the most part harmless, but when he asserts that his opponents persist in wrong *after their eyes are opened*, he exposes himself either to ridicule or contempt. A journal which pretends to represent the "common opinion of the profession," scarcely carries out its programme by ignoring every opinion but that of a clique. It does not advance its own views by denying the existence of others, nor show extensive information by being blind to what is transpiring at a distance. Thus, respecting this so called "condemnation," which the journal in question laboured so hard to secure, and over which it so indecently gloats, the latest echo from across the Atlantic pronounces it to be "PROFESSIONAL MURDER." Surely the "common opinion of the profession" does not quite repudiate the existence of the American section. But even if British opinion alone be referred to we cannot believe that it is so blinded by personal strife as to approve an unprovoked attack upon the memory of the dead.

Notes on Current Topics.

THE MOSQUITOES OF THE STRAND.

These troublesome insects, or rather the guardians of the Strand Union who resemble them, have again been endeavouring to annoy their medical officer, Dr. Rogers, in reference to the case of lunacy received into the workhouse in June last. They charge him with gaining admission for Kirby into the asylum by a *mode not ordinarily adopted*, and they assert that in their opinion he was *hastily and improperly* sent there. It is well for Dr. Rogers that he knows how to protect himself from the stings of these

troublesome intermeddlers with his public duties. He has surrounded himself with the authority of the Commissioners in Lunacy, who have fully justified his conduct, and, consequently, tacitly censured that of the guardians. A further justification occurred in the fact that, at the next meeting of the Board, Kirby's wife made application for her husband's admission to the house, as he had again become violently insane.

CHOLERA IN SWITZERLAND.

A SERIOUS outbreak of cholera has occurred in Switzerland, of which Zurich seems to be the focus. It is asserted that the disease was imported from Italy, although this is disputed by some. What is certain is, that the epidemic has been extensive, and of a very fatal form, and that many unsanitary influences are at work. It is to be hoped that proper inquiry will be made, and that no such senseless panic will prevail as in southern Italy. We are very glad to hear, in this respect, encouraging accounts. It is said, on good authority, that good soup and wine are forthcoming for all those who stand in need of such assistance, and that liberal subscriptions for such purposes are being raised.

THE MEDICAL OFFICERS OF ST. PANCRAS.

Two letters have been sent to Mr. Bennet, the senior medical officer of St. Pancras Workhouse, by the clerk from the guardians; the first is a reply to Mr. Bennet's letter to the chairman of the board, on the subject of his dismissal, and refers him to the provisions of the Metropolitan Poor Act, 1867, the other is a notice to him that his appointment as resident medical officer, will be at an end, 1st November next. This, on the part of the guardians, is only carrying out their dogged determination, only perpetrating their injustice to an officer who has served them well, and against whom not a word of unfitness or blame can be uttered. True, they speak of compensation, and refer him to the act on this subject, but it may be fairly questioned whether any sum the Poor-law Board may award, or any annuity they may settle on him can ever remunerate him for the loss he has suffered in preparing himself for an appointment, as he expected, with a life tenure, and with an adequate and unvarying salary. Or, on the other hand, if they were fully to satisfy the claims of Mr. Bennet, would it be just that the parishioners should be fined to that extent in order to afford their guardians opportunity for exercising an unjust and useless authority. We should not be overstepping the bounds of truth, if we were to add an injurious authority, for the history of the workhouse will show that they are going back, in the step they are taking, to a state of things which has heretofore led to disgraceful immorality. Mr. Bennet has sent copies of the two letters to the Poor-law Board, requesting a reply at their earliest convenience to his communication of 13th September. Deep silence at present reigns in that quarter. Eventually they must speak, and all are waiting their authoritative utterance. We hope they will do justice to Mr. Bennet.

EXPERIMENTAL MEDICINE.

DR. RICHARDSON, F.R.S., recommenced his course of lectures on the 8th inst., taking as his subject "Bichloride of Mettylene as a General Anæsthetic." His lectures, of which we have reported all given, are quite unique and continue to be as attractive as at first. This lecture was a series of brilliant experiments, and his audience most select. We can strongly recommend every one who has the opportunity to attend these demonstrations. Dr. Richardson is peculiarly adapted for the office he has created, and we hope he may long continue to communicate in this manner the results of his researches. It is a pity that there is not a greater demand for such instruction as this. It augurs well for the profession, however, that so many men, all more or less occupied, should make a point of attending Dr. Richardson's course, the only one of the kind in the kingdom.

PUBLIC MORTUARIES.

WE are glad to hear that the new Health Officer for Paddington has urged on the Sanitary Committee the want of a public mortuary for the district. He speaks favourably of the plan of adapting the disused burial grounds as sites for such buildings, and he would have a Resident Officer to keep a proper register, and undertake the responsibility of cleansing, disinfection, ventilation, &c. Few wants are more obvious than this, when inquests are daily held in petty taverns, when autopsies are continually performed in ill-suited chambers, and when, as lately happened, a corpse may be carried about from place to place, and refused shelter for several days.

DEATH IN A TRAIN.

ON the 8th inst., a man named John Montague, who had for some time been an invalid, travelled by rail from Durham to Newcastle. He died in the train, and at the inquest, a verdict of "death from natural causes" was returned. We commend this fact to the sensation coroner, who would have it believed that a person with constriction of the aortic orifice, is not likely to die without breathing the air of the Metropolitan Railway Company's tunnels, and to all those who seem to have forgotten that out of the many thousands who weekly travel on that railway, according to the doctrine of probabilities an occasional death from natural causes may take place. But we live in an age of sensation, and even coroner's are not exempt from the prevailing influence.

THE LATE DR. SMITH OF READING.

The father of Professor Goldwin Smith, who was for many years physician to the Royal Berkshire Hospital, has put an end to his own life while suffering from mental disease. Dr. Smith had for sometime past suffered from brain disease, and was under the care of an experienced attendant. He was still able to take carriage exercise, and last week, while out driving, procured from a chemist some prussic acid, which, on his return home, he took, after locking himself in his library. The sad event has caused deep gloom in the neighbourhood, where the doctor has long been greatly respected. Many details have been given by the daily papers, but the only shade of comfort for the survivors is the undoubted state of the deceased gentleman's mental faculties, which removes the act from suicide in the ordinary sense.

BOAT-RACING.

THE *Times* has published a letter from Mr. Skey, protesting against the folly of young men undergoing the fearful physical strain required in athletic contests, and especially in boat-racing. There can be no doubt that many persons do themselves irreparable injury in this manner. And

those who have any, even the least, imperfection of the heart run imminent risk of death in the course of such exercise as is necessary even for the training.

Correspondence.

THE PATENTING OF INVENTIONS IN CONNECTION WITH MEDICINE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—A few weeks ago I sent to each of the weekly medical periodicals a letter concerning Sea-sickness. In that letter I gave a summary of the evidence now accumulated, proving the reality of my discovery of a remedy for the "evil of the sea" (*mal de mer*), as the French expressively call it; I invited medical men about to cross either the Irish Channel in order to attend the meeting of the British Medical Association at Dublin, or the English Channel in order to attend the Medical Congress at Paris, to test the value of my discovery, and by way of inducing them to do so, I offered to lend an ice-bag, and to supply, gratuitously, the requisite quantity of ice, packed ready for transit to each medical man willing to try the experiment. The *Lancet* ignored the letter; the *Medical Times and Gazette* both inserted and called attention to it; THE MEDICAL PRESS AND CIRCULAR did the same; but the *British Medical Journal*, instead of inserting the letter, said,—"Dr. Chapman's views as to the prevention of sea-sickness by the use of an ice-bag to the spine have already been made widely known by his various publications; and, as the patenting of inventions in connexion with medicine is not in accordance with the principles generally approved by the profession, we shall content ourselves with stating that he offers," &c. The reason alleged for not publishing my letter seemed to me so extraordinary that I was induced to write an expostulatory letter to the editor of that journal, but he refused to publish it. Now, sir, I am of opinion that the question on which the *British Medical Journal* has given judgment before hearing counsel deserves thorough discussion, but the Directory of that journal seems to think otherwise: this is one of those questions in respect to which, for reasons I suppose of profound medical "state policy," it deems discussion in the organ of the British Medical Association dangerous, and therefore suppresses it. Indeed, at times, I have felt as if my brain were beginning to reel with wondering doubt whether on this subject my poor thoughts, which I have been wont to regard as at least innocent, if not sound, are not in fact both dangerous and wicked, for I have been told that in the bosoms of the presiding genii of the metropolitan branch of that association there burns an intense flame of "strong feeling" against me, that in presence of it the editor of the *British Medical Journal*, after asking me to allow him to propose me as a member of the association, was obliged to abandon his friendly purpose, and that for my sin of having patented the spine-bags, which I devised, there is no expiation. But surely, sir, my fate is a hard one. I am precluded from communicating with a large body of my professional brethren; I have been condemned in their presence without a hearing; and when I claim the privilege of appealing against this *ex parte* judgment, I am answered,—"We are unwilling to open the subject; many important members of the association would strongly disapprove of its discussion, and were it discussed in the organ of the association, they would be greatly offended." Why this shrinking from discussion? After the utmost effort to find out "why," my doubts have vanished, and I have become convinced that the said "Directory" is conscious that the position it has assumed in respect to the subject in question would prove untenable were a battery of logical arguments turned upon it. In the belief that I shall be able to demonstrate the truth of this conviction to the satisfaction of your readers, I ask you to publish the following letter—rejected by the *British Medical Journal*.—Yours truly, JOHN CHAPMAN.

"TO THE EDITOR OF THE BRITISH MEDICAL JOURNAL.

"SIR,—I observe that you decline to publish my 'communication on Sea-sickness,' the receipt of which you acknowledge in your number published August 3rd, and content yourself with merely stating the offer contained in the last paragraph of my letter, because, as you say, after observing that my views are already well-known, 'the patenting of inventions in connexion with medicine is not in accordance with the principles generally approved by the profession.' Believing that an examination of these 'principles' will conduce to professional 'edification,' as well as to the justification of myself, I request you to be good enough to publish the following remarks:—

"The so-called quack medicines, the ingredients of which are kept secret, and the virtues of which are vaunted as adequate to cure almost every disease which 'flesh is heir to,' are undoubtedly designed by their owners in the great majority of cases, as means of trading on the ignorance and credulity of the public; and as these compounds (Holloway's and Morrison's pills for example) are taken by those who trust in them as antidotes for a great variety of maladies, often diametrically opposite in nature, they are likely, while doing no good, to do much harm to the bodies as well as to the pockets of their victims. Moreover, as a general rule the administration of drugs, the nature of which is unknown to the prescriber, is incompatible with the progress of medicine as a science, or the systematic growth of a reliable power of understanding and subduing disease. These considerations render it not only expedient but imperatively necessary on public grounds that every physician and surgeon should resolutely refuse professional recognition of any one who deals in secret or quack-medicines. Indeed the government of this country has become so strongly convinced of the impolicy of encouraging the custom of vending medicines the composition of which is kept secret, that for some time past it has, I believe, ceased entirely to grant letters-patent securing to any one an exclusive right to compound and sell such medicines: the only legal privilege a dealer in them can now obtain is that of labelling his articles with any peculiar trade mark which he may choose to adopt. The imitation by a rival of such a trade label, the legal character of which is identical with that of the labels on Bass's beer bottles, the law holds to be a species of forgery and punishes it as such.

"Thus a right appreciation of the claims of medical science and a due regard for the public welfare have conjointly necessiated professional repudiation of men who deal in secretly compounded or quack-medicines, as well as earnest reprobation of the custom so long as it was continued, of protecting such medicines by royal letters-patent. It is not to be wondered at, therefore, that influenced by the law of mental association, the great body of medical men, who feel a wholesome horror of patent medicines and of the whole system of secret nostrums, should confound with them, and feel the like horror towards every remedial agent to which the word patent is attached. Hence, as you observe, 'the patenting of inventions in connexion with medicine is not in accordance with the principles generally approved by the profession.'

"But, sir, I venture to predict that this *indiscriminate* condemnation of all patents in connexion with medicine will be reversed, and that the medical profession in order to justify and maintain the 'principles' which animate it in reprobating patent medicines and the whole system of secret nostrums, will be obliged to appeal to the only true standard of right and wrong—the great doctrine of utility, expounded with pre-eminent cogency and clearness by John Stuart Mill. Guided by that doctrine, I have shown above what is the true basis of the 'principles' in question, viz., the well-established conviction that the vending of medicines, the composition of which is kept secret, and the granting of letters-patent empowering the exclusive manufacture and sale of such medicines are impediments to the progress of medical science and injurious to the public at large. But the same cannot be said of the grant of an exclusive privilege, for a term of years, of making and vending a surgical instrument or any mechanical apparatus for a medical purpose. This privilege involves no secresy: any one can make medical or surgical apparatuses for accomplishing the same purposes as those for which the patented articles are designed; the mode of their construction is not and cannot be concealed; and all the privilege the patent confers is that of an exclusive right for a term of years of making the patented article.

"It is objected that no medical man ought to have a pecuniary interest in anything he recommends, for, if he has, he is likely to recommend it in cases when it may not conduce to the welfare of his patients, and may even prove injurious. In support of this objection it is urged—(1) that medical practitioners who supply from their own dispensaries, and charge for, the drugs which they prescribe, are often tempted to dose their patients with medicines which they would be quite as well, and perhaps better, without; (2) that alienist-physicians who themselves possess houses for the residence of the insane, may be induced to recommend the seclusion of patients in those

houses in cases in which seclusion is unnecessary, and even cruel; (3) that if, for example, the Director-General of the Army Medical Department were to invent and patent a portable bed, alleged by him to be peculiarly desirable as a part of the camp equipage of soldiers, he would be tempted to order the soldiers to be supplied with it, and thus, supposing the bed were not superior to others already obtainable, would, in so doing, abuse his official authority; and (4) that even if without acquiring an exclusive patent-right in an article a medical man has any private interest in its sale, he is likely to recommend it in cases in which his patients may be at least as well without it.

"It is, of course, a truism that there is no custom, however good, which may not be abused by bad men; but they who use the above objections as arguments against patenting any invention in connexion with medicine will scarcely be prepared to maintain, as a general rule, the necessity of abolishing good customs in order to prevent their abuse; and yet if the argument derivable from the first three of the objections just named is valid at all, there is no escape from its logical application to the full extent here indicated. Indeed I am sorry to say this is often done, but generally only for a time. The practice long prevalent among medical men, of supplying their patients with medicines, is advantageous for several reasons. In a large proportion of the villages throughout the country there is not a sufficient demand for drugs to enable an intelligent and duly educated druggist to live on the profits of their sale, so that patients are forced either to trust to the village grocer to supply them with medicines, or to incur the expense and delay of getting them from the nearest market-town, unless their own doctor dispenses them himself; whereas it answers his purpose to keep an adequate supply of good drugs always on hand, which can not only be had immediately, but can be dispensed by himself, or by a person whom he can rely upon for accuracy. Moreover, as he reaps the profits which otherwise would be taken by the druggist on the drugs supplied, he can afford to charge proportionately less for his professional advice; and thus patients, while being saved the delay and the expense of sending to a distant town for their drugs, or the risk of grave mistakes committed by the village grocer in dispensing them, can actually obtain medical help not only better and more promptly, but cheaper, when the doctor supplies the drugs than when he does not. But because this excellent custom has been often and greatly abused, it is being abolished. I predict, however, that when the people become sufficiently enlightened to appreciate the wisdom of the doctor in withholding, as well as in giving, drugs, and therefore to pay for advice even the more willingly when drugs are not needed, the country doctors will re-establish the good old custom of supplying medicine to their patients, who, learning to appreciate quickly the tendency of any man to abuse the custom and their trust in him at the same time, will effectually check it by refusing to call him in.

The custom, common to many alienist physicians, of possessing houses for the reception of the insane, and of recommending their patients to be placed in these houses, though often perhaps much abused, has several substantial advantages: numerous and peculiar conditions in the character, situation, and arrangements of such houses require to be complied with in order to make them suitable residences for insane patients. Moreover, there is no other class of sufferers needing such constant and peculiar care as those mental sufferers whose maladies have not yet become chronic, and of whose recovery by judicious means there is still hope. They need the highest order of attendants on the sick—men and women who by original constitution, careful training, and adequate experience, have acquired a peculiar aptitude to discharge their important duties rightly. Such houses and such attendants are not obtainable suddenly, but only in the course of a considerable time; and the selection of both, as well as the training of the latter, implies the exercise of the peculiar knowledge and experienced judgment of the alienist-physician. But when he has duly realized his ideas on the subject, is it expedient that he should relinquish his control of the organization he has originated as soon as he has completed it, or let it become disorganized as soon as the case or cases for the treatment of which he improvised it may have passed from under his care? Surely considerations for the mentally afflicted, reason, and common sense, as well as economy, forbid it! And who is there at once so likely and so competent to ensure the continued existence and improvement of these houses as the physicians whose therapeutic agents they are? Moreover, as medical aid can be obtained cheapest from the country doctor who dispenses his own medicines, so the alienist-physician, by holding these agents in his own hands can treat mental maladies at less cost to his patients when the profit derived from their payments for residence, instead of going to other persons, forms a part of his professional remuneration. This last argument may have no weight in respect to 'the upper ten thousand,' but in respect to the classes below them, constituting the great body of the nation, it is of the utmost importance. The custom in question, then, is a good and beneficent one, and instead of being abolished because it may be, and I dare say often is, gravely abused, ought to be encouraged, the more especially as the abuses to which it is liable are peculiarly easy of detection and remedy.

"In the supposed case of a director-general of the army patenting an article forming part of soldiers' camp-equipage, if his own good sense did not prevent him from abusing his authority he would soon be effectually restrained from doing so: his first recommendation of an article in which he was known to have an interest would be considered with the suspicion attaching to that circumstance, and were he to use his authority unduly to cause its adoption by the army, he would incur the risk of losing his appointment. Moreover, in every grant of a patent, the Government reserves the right to make use of the patented article without paying the patentee anything for it, and might justly avail itself of that right in the case of a patent by one of its own servants.

"The answer to the fourth objection is very simple. A medical man who takes advantage of the trust reposed in him by his patients to recommend their use of an article in the sale of which he has a *secret* interest, commits a species of fraud every time he recommends the article: such a proceeding when detected would be condemned by the public as strongly as by the profession; and justly so, for the secrecy of it precludes the possibility of analyzing and estimating the motives of the recommendation, which are therefore presumed to be as unselfish as they appear. But how different is the case of a physician or surgeon who has patented an invention in connexion with medicine or surgery, and who avows it! He is always conscious that he is liable to the imputation of seeking to promote his personal interest when he recommends his own patients to make use of his invention, and therefore will probably hesitate to do so even in cases where he is sure it will prove beneficial, unless he is either a genuine enthusiast or possesses more moral courage than most men. If, however, selfishness, self-delusion, or enthusiasm induces him to laud his production unduly, he quickly encounters a wholesome check: his patients learn to appreciate his advice at its worth, while his professional brethren deride or ignore the claims of a man who distinguishes himself by the loudness of his self-praise. And though he may exaggerate the importance of his invention, the evil of doing so is in any event limited within the circle of his own patients: no others are likely to avail themselves of a novel discovery without first consulting their own medical advisers; and those who know best how slowly mankind recognises new truths or the utility of new discoveries, know equally well that those advisers will generally hesitate long before examining and expressing any approval of a procedure which is new to them.

"Thus it appears that while customs good in themselves may be dreadfully perverted to evil purposes (the very devils are said to be fallen angels), such pervertibility is no valid reason for abolishing those customs; and that it is much wiser and better to deal with each case of perversion or abuse separately, and on its own grounds, than to forego the indisputable and great advantages which those customs confer.

"Indeed, if for the reasons just adverted to, physicians ought not to have an interest in any apparatus the use of which they may recommend, then, *à fortiori*, they ought not to have an interest in any therapeutical theory, system, or method, the practice of which they may prescribe. For what influence is so powerful to obscure and pervert mental vision, to vitiate the arguments of the ablest reasoner, to cloud and warp the judgment of the most sagacious judge, and to render the medical practice of even the most experienced man both dangerous and absurd, as that of the interest of an enthusiast in a dearly cherished theory? Who is able to write the history of all the medical theories which, since the time of Hippocrates, have risen, have had their day, and have passed away, and which, during their successive possession of the medical mind, have caused their professors to hasten the deaths of countless numbers of human beings? And yet, even now, every day a legion of doctors are doctoring their patients at the bidding of theories which they zealously espouse! Surely here, if anywhere, is the sphere in which there is the most urgent need for medical

legislation! And, nevertheless, the supreme guardians of the public health—the Royal College of Physicians—sit unmoved by the contemplation of the vast evils resulting from this calamitous practice! Why not institute an examination for the passing of which the chief qualification shall be mental indifferentism? In the religious sphere, the ancient sages of India declared this to be a characteristic of the highest wisdom and 'the condition of the Supreme Being'; why, then, should not the supreme authorities in the medical world declare those only of the candidates for their diploma duly qualified to practice medicine who give evidence that they regard all medical theories and systems with equal indifference, and that the allurements of new ideas have no power over them? Indeed, that far-searching pioneer of medical legislation, the *Lancet*, which is ever crying aloud in the wilderness for more and more law to protect us completely on every side, has already *implicitly* pointed out the need of such an examination: when reviewing my work on '*Diarrhœa* and *Cholera*,' it announced that, 'in fact, the time appears to have come when it is necessary to check rather than to aid public enthusiasm' for one theory, at least, viz.—that which I have propounded.—(*Lancet*, 13th April, 1867.) But until the College of Physicians has become alive to the fact, that the time has really come for it to institute the new order of diplomas just mentioned, we must, I fear, accept the world as it is, and deal with its laws and usages as we find them.*

"The State confers exclusive rights in the shape of patents, not merely as a reward to the inventor for his invention, but as an encouragement to him to expend his energies in directing public attention to it; for no one is so likely as himself to do this if his remuneration for it is dependent on the extent to which it is made known; and as, however greatly his discovery is capable of contributing to the public weal, it will remain fruitless so long as it remains in obscurity, the nation is directly interested in stimulating inventors to diffuse as widely as possible a knowledge of their inventions. And this remark is in the highest degree applicable to medical discoveries. There is therefore even greater reason for according the exclusive privilege granted by a patent than there is for granting a copyright; and were it not for the magic influence of 'a name,' the exclusive right to make and vend a surgical or medical apparatus would never have been confounded with patents of secret nostrums.

"I am aware that in the minds of certain professional gentlemen, who do not adequately analyze their ideas on this subject and trace them to their foundation, there lies a certain sentimental notion that physicians are in some mystical sense a species apart from and far above the rest of mankind, and that it behoves them to forbid any one of their caste patenting any medical or surgical apparatus, lest by doing so he should degrade himself to a lower level. I do not hesitate to affirm that the great majority of those who flatter themselves by nourishing this sentiment would find it wither in a night if exposed to the rude blast of experience. The fact is, so few mechanical appliances really worth patenting are devised by professional men that they are scarcely ever 'led into temptation' and so tested: were it otherwise we should soon see that the sentiment in question is but

'such stuff
As dreams are made of.'

"In the absence of any such trials, a certain class of men doubtless find pleasure in encompassing themselves with a halo of moral grandeur from the region of dreams, and were it not that this seductive habit is inimical both to the progress of medical science and to the public good, I should hesitate to dissipate this halo by the breath of reality. But I am constrained to affirm that in so far as the policy, the expediency, the morality, the dignity, in short 'the principles generally approved by the profession,' condemn the 'patenting of inventions in connexion with medicine,' precisely so far do they condemn the holding of copyrights in medical and surgical books, and in the titles of medical journals—that of the '*British Medical Journal*' not excepted. All professional proprietors of such books and journals can only be at once logical and consistent, either by cordially recognizing the right of their professional brethren to patent any apparatus devised by them for surgical or medical purposes, or by surrendering their copyrights *pro bono publico*. If within the pale of the profession there should be a third party, the members of which are so very 'pure' as surgeons or physicians that they regard the Copyright Law as a 'stumbling-block, and those who avail themselves of it as an 'offence,' I beg humbly to suggest to such persons that they ought to give their advice gratis to all who ask it. For what is the meaning of a patent or a copyright? Obviously, no other than to secure to each man a right of property in the product of his own brains. Is he wrong in availing himself of this right? If so, then the 'pure' physicians and 'pure' surgeons are equally wrong in refusing to allow the public to profit freely of their advice without paying for it. I believe, however, that these dignitaries of the profession, who, according to its avowed 'principles' rigorously interpreted, ought to practice their calling without seeking for fee or reward, do, indeed, exact the largest fees demanded by any member of the medical body!

"I feel assured, sir, that both you and the Council of that Organization which the *British Medical Journal* represents will admit that the foregoing argument is a *reductio ad absurdum* of the doctrine that the patenting of an apparatus for a surgical or medical purpose is an immoral, dishonourable, undignified, or in any sense unworthy act. Otherwise you are bound to justify your exclusion of my letter on sea-sickness from your journal by showing wherein lies the difference of moral complexion of the following acts:—

"The holding of a patent-right in his spine-bags, by Dr. Chapman.

"The holding of a copyright in his Principles and Practice of Physic, by the Ex-President of the College of Physicians, Sir Thomas Watson.

"The acceptance of a fee, by the President of the Council of the British Medical Association, Dr. Sibson.

"Among the many beneficent consequences of my discoveries is the power of preventing or curing those two hitherto incurable maladies—the sickness of pregnancy and sea-sickness. It is unlikely that I shall ever receive a fee for advice in a case of sea-sickness, for I have published gratuitously a detailed description of the remedy, with such directions for its application as render further advice, unless in very special cases, unnecessary. Is there any reason forbidding me to receive remuneration from those who are saved from sea-sickness by the use of spine-bags, which does not equally forbid Sir Thomas Watson from receiving remuneration from those who are instructed by his classical and delightful book, and Dr. Sibson from receiving remuneration from those who consult him? Why must one of the results of my mental labour—the discovery, for example, of the nature and remedy of sea-sickness—be *given* to the world, while the labour expended by Sir Thomas Watson in his two volumes of lectures is paid for by a contribution from every purchaser of those volumes, and while Dr. Sibson receives a fee from every one who deems his advice a desideratum? Or can you point out a difference in the quality of the mental labour in these three cases so essential as to justify the doctrine you implicitly propound—viz., that whereas in the second and third case the labour should be paid for, in the first it should not?

"The fact is, men who, instead of being led like sheep, think for themselves, know quite well that no such difference is discoverable. I have been informed that soon after Dr. Richardson invented his æther spray instrument her Majesty's physician, Dr. Jenner, said if he were Dr. Richardson he should patent the instrument; but the inventor, fearing, it is said, lest he should be deprived of his Fellowship by the Royal College of Physicians, deemed it expedient not to do so. And now, partly on the ground that he *gave* his invention to the public, a committee of gentlemen are asking subscriptions in order to present him with a substantial testimonial! *How* "substantial" will that testimonial be at best after the utmost straining to collect it? If Dr. Richardson deserves it, as I am sure he does, who can be so properly called upon to contribute to it as those who use the instrument? Moreover, they would willingly do so in the shape of part of the price paid for it; their aggregate contributions would really amount to a *substantial* testimonial, and Dr. Richardson would have the satisfaction of feeling that he was receiving money from those only whom he had directly benefited. Does it not seem, therefore, that Dr. Jenner was right, and that it would have been better for Dr. Richardson, and no worse for the world, if the opinion of Dr. Jenner had been acted upon?

"Before I patented the spine-bags I consulted the President of the College of Physicians, Sir Thomas Watson, and the head of the medical department of the Privy Council, Mr. Simon, as to the propriety of doing so. I acquainted them with all the circumstances of the case; and both these gentle-

* This paragraph has been added to the letter since its rejection by the Editor of the *British Medical Journal*.

men expressed the opinion that I was justified in doing so. It may be that neither of them arrived at their conclusions by the path indicated in this letter; and it is probable, I think, that in forming their judgment on the subject, they were mainly influenced by the consideration of the peculiar circumstances of the case, and especially of the fact that I could derive no direct benefit from my discovery of the nature and means of preventing sea-sickness.* I acted on that opinion, and though as a punishment for doing so, the Medico-Chirurgical Society denies me access to its valuable library by refusing to admit me as member of the Society, I have at least the consolation of remembering that Sir Thomas Watson, and several other physicians scarcely less eminent than himself, deemed me worthy of being honoured by their recommendation for admission.

"And now, sir, I beg to ask you, in conclusion, whether you think you are contributing to the progress of medical science, the object of which is to prevent or lessen human suffering, by closing your pages against me because the 'patenting of inventions in connection with medicine is not in accordance with the principles generally approved by the profession'? It is now four years since I announced my discovery that the circulation and nutrition of remote parts, or of the periphery, of the body may be increased by the application of ice along the spine, and may be decreased by the application of heat to the same region; also that the functional activity of the spinal cord may be depressed or exalted in the same way. The reality of this discovery has been verified by many physicians. As stated emphatically by Dr. Routh in the debate on my paper on 'Epilepsy,' recently read to the Medical Society of London, 'the facts are thoroughly established and indisputable, and being so they open up the prospect of a great therapeutical revolution.' And yet, except in one derisive leading article (on my work on *Diarrhœa and Cholera*), written, I imagine, by a physician whose notorious 'Cholera Theory' I had previously subjected to careful criticism, the *British Medical Journal* has studiously ignored that discovery. Does it thus consult the interests of humanity, or merely minister to the feelings of self-satisfied conservatives in high places, and the prejudices of that large class of men who, instead of judging for themselves, prefer to listen to the echoes or 'variations' of mere time-honoured dogmas, as if they were infallible oracles? I know that some physicians of the former class, like the priesthood of every religion, assume the book of revelation to be closed: I once asked one of the officers of your Association, whom the doctors of Dublin are now delighting to honour,† whether he had examined at all the therapeutical power derivable from my discovery just referred to. 'No,' he said, 'I am quite satisfied with the therapeutical means already at my command, and am not inclined to look for others.' But I hope and trust, sir, that this is not the spirit in which you consciously conduct your journal, and that your endeavour is to direct and develop, rather than merely to reflect and repeat, the ideas of your readers, although I am painfully aware that, as a general rule, English journalists, like American statesmen, can give effect to their own convictions within but a very limited sphere, and that they must do the will of the real masters—the public whom they serve.—I am, sir, yours truly,

"JOHN CHAPMAN.

"London, 25, Somerset-street, W., August 6th, 1867."

INFLUENCE OF WATER ON CHOLERA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The recent testimony of Dr. Letheby, given before the Royal Commission, on the influence of water in the propagation of cholera, having attracted less attention than its importance warrants, I am desirous of promoting discussion with the view of arriving at some definite conclusion on the question, which would both conduce to professional credit, and confer a permanent and an inestimable benefit on the general public.

That a subject of such vast importance should have been permitted to remain unnoticed since its publication by you, on the 21st of August last, is surely no matter for congratulation, it is but another demonstration of the difficulty of disturbing foregone conclusions, and of the tendency to rest satisfied with mere assertions on scientific questions.

It is, therefore, not a matter for surprise, that the late Dr. Snow's generalization on the question should have influenced the public mind to a great extent, as the many are easily led away by pretty theories, but that usually careful inquirers should fall into a similar error, is greatly to be deplored.

Dr. Farr gave evidence before the same Commission to the following effect:—"That wherever this particular water (from the reservoir at Old Ford) was supplied, the cholera was most prevalent in that district, and that they could mark it even to the centre of the street, one side of the street being supplied with one water, and the other with another, and that the bad was marked by the progress of the cholera most distinctly throughout the district."

An opinion so unqualified, emanating from such a source, has undoubtedly exercised considerable influence in propagating error. Unquestionably error, because unsupported by facts, and Dr. Letheby, as Officer of Health for that particular district, repudiates the correctness of the assertion, as shown by the appended reply:—"I do not concur in that opinion" (Dr. Farr's.)

But Dr. Letheby is not content with making an assertion—he supports his position with such a mass of well authenticated facts, as must annihilate *all the suppositions* the whole world can place in the opposite scale.

"In one division of the city there were sixty-two deaths in the district supplied by the East London and the New River Companies. Now, the New River Company's water is above suspicion, nevertheless, of those sixty-two deaths in that district, there was only a single house in which the East London water was taken, all the rest were supplied with New River water."

"At my own hospital (the London Hospital), we had nearly 500 people, and they drank nothing but East London water. Those patients may be looked upon as people most susceptible of disease, but we had not a single case of cholera arising in the hospital, though we had such a large number brought in as patients," thus proving that contagion or infection was as powerless as the assumed poisoned water in propagating the disease.

"In the next place, people taking that water, and drinking it in its unfiltered state, did not get the cholera, while the cholera affected people in that district who did not take that water."

"At one of the city of London Workhouses, the City of London Union Workhouse, which is in the New-road, they did not take a drop of the East London water, but drank the water from their deep well. I receive, and did receive, every week a return of the progress of disease in that workhouse, and they were decimated with cholera."

"Another workhouse—namely, the East London Union, has its workhouse at Hackney, where they do take that water, there was not a case of cholera there; and then at Stamford-hill, and those places where no other water but the Old Ford reservoir water was pumped—for they have a special power to send it to those places—there was no cholera."

With the reproduction of facts so well calculated to convince logical minds, that cholera is propagated by other media than contaminated water or contagion, I am satisfied that, in challenging discussion, views more rational and correct than some which have recently been written into notoriety, will find favour with practical men.

Having confidence in the influence of discussion, with your permission, I will return to the subject by offering some remarks on the report recently issued by the Medical Officer to the Privy Council.—I am, sir, yours faithfully.

EDWIN HEARNE, M.D.

Southampton.

REPRESENTATION OF REGISTERED PRACTITIONERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The proposal of the Medical Council regarding the representation of registered practitioners thereon, namely, that the nominees of the Crown should be replaced by members elected by the profession at large, is exciting a good deal of attention among those interested in medical politics.

* Mr. Simon, after expressing his opinion, as stated, added that he thought the advertisement of the spine-bags ought not to be appended to my medical works. In saying so, he no doubt expressed a general feeling of the profession, having the same origin and justification as that entertained respecting "the patenting of inventions in connexion with medicine." The convenience of every one desirous of procuring spine-bags, in order to test or practise my therapeutical method, is consulted by giving within the covers of the books expounding that method, the indispensable information where those spine-bags may be obtained; but medical etiquette—which, though very good, is unfortunately blind—cannot see the advantage of this proceeding, and so forbids it.

† This letter was written during the meeting of the British Medical Association in the Irish metropolis.

It cannot be concealed that this question of the representation of registered practitioners is the commencement of a struggle between professional and corporation interests, in which, however high class corporations, such as most of those we have in Ireland, may fairly be expected to range themselves on our side. The question at issue is this: Is the profession to continue to be overstocked, as at present, with practitioners of low grade and inferior education, whose services are worthless, or worse, to the public, but whose competition, nevertheless, reduces the value of professional labour of a better class, alike in army, navy, poor-law, club, and private practice, and this in order that corporations may pocket fees for passing them; or are we to have those only admitted to our ranks who are well educated as gentlemen, and well qualified as medical men, whose services shall be of value to the public, and who, not being underbid in the market by unfair competition before an undiscerning public, may be in a position to demand a fair recognition and estimate of the same? Now, in this question, the business of the Crown nominees on the Council is, I conceive, to take care of the interests of *the public*, to see that they do not suffer by either party pressing their own interests too far; to see that men not up to the mark are rigidly excluded, notwithstanding the interests of the corporations, and that all who may safely be trusted with the lives of their fellow-creatures shall find entrance notwithstanding the interests of the practitioners; in short, to hold the balance fairly between the contending sides in favour of the public, whose advantage must be admitted to outweigh that of either party.

But, under the present system, the public are suffering from the admission of men of inferior talent and qualification, as proved by the rejections before the unbiassed examiners of the Army and Navy Boards. Hence the Crown nominee, for instance, Dr. Parkes, side with the profession for the present, and we must take care not to let ourselves be deprived of their valuable aid in the struggle by any stratagem such as that now proposed in the interest of the lower class of corporations on the Council. We expect the higher class of corporations to aid us, since it is their obvious interest to raise other licensing bodies to their standard.

Take the Irish College of Surgeons for instance. How many candidates for a diploma does it not lose every year, in consequence of the well-known fact that the ease with which a diploma may be obtained, increases as one travels northwards; that there are back-doors in certain places in higher latitudes, which can be opened with a golden key, and which lead to private examination halls, where that terrible functionary, the visitor of examinations, never shows his face.

Is it not consequently the obvious interest of such a body as the R. C. S. I. to support the profession in demanding a higher and more uniform standard amongst its rivals?

It seems to me that the profession, and with it the public, will not be fairly treated in this matter, until all rivalry for diploma fees be eliminated from amongst the licensing bodies, by requiring that all fees for diplomas in a branch of the profession for which the candidate does not already possess a qualification, be paid to a central body, say the General Council, and allotted by them amongst the different corporations in a fixed proportion, irrespective of the number of candidates passed, say in proportion to the average of fees now received by each of them for such diplomas; and in order that the corporations should not suffer for our benefit and that of the public, a percentage might be added to the present charge for fees, if the number of candidates fall off. Fees for the preliminary examination in general education might also be added to the fees for passing the professional examination, for the preliminary examination ought certainly to be conducted by the central body only, and no candidate exempted from it on any grounds whatsoever. A circular receipt from the central body would enable the student to appear before any licensing body he might prefer, the fees for all being equalized at the average of the whole number.

The different corporations would then maintain an honourable rivalry, beneficial alike to the profession and the public, as to which of their different qualifications should imply the highest attainments in its possessor, and consequently hold the highest place in professional esteem.—Yours truly,

ISAAC ASHE, M.B., T.C.D.

"WINDFALLS."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—This being the season for windfalls, I am naturally anxious about them, but will you have the goodness to understand that the windfalls for which I feel anxiety are of a peculiar kind, in fact, nothing more nor less than "little wee" slices from the public cake given to good boys on the recommendation of medical gentlemen, and others, presumed by "The Man at the Wheel," (say a Colonial Secretary or a greater or a lesser personage) to know suitable parties to fill "wants" in departments over which neither *Military*, *Naval*, nor *Poor-law* Boards have control!

As you are the editor of a first-class periodical, sir, and, consequently, know everything from the making of princes to the rolling of pills, I submit the subject to your consideration, and hope you will kindly inform me:—

1. Why are there medical windfalls of the kind above alluded to?
2. Why are not all medical vacancies *advertised* in the Medical Journals?
3. Who are the privileged few that "recommend" (often 3rd class men), and on whose simple "line or two" appointments of from £200 to £500 per annum are made?
4. How is it that occasionally the first intimation given of a "vacancy having occurred" is the gazette announcement that an "appointment" has been made and sanctioned?
5. Why has the General Medical Council overlooked a matter of such importance to the medical profession generally, and to "outsiders" particularly?
6. Is more than one member of the General Medical Council applied to by the authorities to name and appoint—for the appointment most frequently follows the nomination—suitable practitioners to fill the vacancies? and who is he?
7. Is he not applied to in his private capacity, and does he not "get a name" and submit a name, in such capacity, to the applicants?
8. Does the medical profession generally get "fair play" in the nominations, or are the appointments conferred on men who have studied at one or two London hospitals only?

I submit just a few of the queries, relevant to this matter, as I am partial to plums, and have a decided "weakness" for windfalls, as you perceive.—Very faithfully your servant,

"INTERLOPED."

THOUGHTS FOR TEACHERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Allow a constant reader, through the medium of your valuable journal, to beg insertion for the following acknowledgment of his appreciation of a leading article in your last issue, headed "Thoughts for Students." Your doing so will much oblige your very obedient servant,

A DISAPPOINTED STUDENT.

No one can more highly prize than I do, sir, these very instructive and valuable addresses to medical students, delivered from the Professor's chair, just as they enter upon their studies, abounding, as they do, in most important instruction, warning, and exhortation. Indeed, the perusal of these faithful and affectionate addresses, so eloquent and so appropriate, would lead one unhesitatingly to the happy conclusion, that under the kind care and direction of such teachers, no student could possibly pass through his "curriculum" and yet be found at the end, untaught, or ignorant of his profession. Alas! it is notoriously true that such is not the case. Too true, indeed, that many medical students, supposed to have enjoyed great advantages for acquiring a sound knowledge of their profession, are rejected by a Board of Examiners when they come to endure the ordeal of a "solemn examination." Such a result reflects blame upon pupil or teacher. Perhaps upon both. I presume not to decide the matter, but with all deference, give it as my opinion, and experience, that the present system of medical education is very defective, and does not afford even the most diligent student opportunities to acquire a thorough practical knowledge of his profession. It is quite true that the sources of instruction are manifold, and in themselves most valuable. True, also, that our hospital teachers are men of high ability and extensive attainments, fully qualified for their great responsibilities. But what of all this, if the teacher has not time to teach, assuredly his pupils must remain untaught! The eminent medical staff of our several hospitals, and other public medical schools, are so fully engrossed by their private practice, that they cannot command time to instruct, as they should do, the large classes committed to their tutorage. Hence, as a matter of course, arises an absolute necessity for some more efficient and appropriate mode of instruction than that afforded in hospitals and lecture rooms,

and an endeavour is made to make up serious deficiencies in education by a system, technically called "grinding." Upon this system I shall merely remark, that intellectual culture must ever be *slow and progressive*, in order to prove either permanent or useful. I write not inconsiderately, or as a mere caviller. My object is, if possible, to draw the attention of the leading members of our profession, to the deliberate and serious consideration of matters deeply involving the dearest interests of individuals, and of the public at large. If called upon to suggest a remedy for the defects pointed out, I would reply very briefly—let a staff of duly qualified teachers be set apart for the sole purpose of giving instruction in hospital; let more time be devoted to clinical studies, the number of lectures considerably diminished, and means supplied of acquiring a comprehensive knowledge of matera medica, and the practice of medicine.

It would, indeed, seem as if the necessities of the case originated the present very general practice of *grinding* and *cramming*.

Let the hint, then, be taken, acted upon, and a diligent and extensive course of *viva voce* teaching in the several departments of medical science be put into operation, the results carefully observed, and valued according to their deserts.

Unwilling to trespass further upon your valuable journal, I conclude my remarks for the present, with an earnest wish that the defects complained of may be considered worthy the earnest attention of those who have it fully in their power to correct and amend them.

REGISTRATION OF BIRTHS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Had your correspondent, "Anti-disobliging Birth Registrar," requested any person having the care and custody of the infant, to give notice to the registrar of the district to come and register such child—notice by post is sufficient. Upon the registrar's non-compliance within six weeks from the birth, he will be liable to a penalty of £5. The remedy is a summons before a magistrate. This applies to deaths also. He would then have saved himself and friends much unnecessary trouble. He could have ascertained this by writing to the Registrar-General of England.—Yours truly,

A CONSTANT READER.

THE ROYAL IRISH CONSTABULARY AND THEIR MEDICAL ATTENDANTS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In answer to the query to the medical attendants of the Royal Irish Constabulary, I, for one, beg to state that I do not consider the pay, one shilling per month per man, adequate remuneration, particularly when, by a recent order of the Inspector-general, in accepting the appointment, we are obliged to state that we will attend the married families and supply medicine gratis. I think the remedy is in our own hands, by resigning the appointments unless the pay is increased, which I will gladly do if the other Dispensary Medical Officers agree to do the same.

ANOTHER OF THE LOT.

THE DIETARY OF THE IRISH PRISONS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have seen, with much surprise, the names of three gentlemen mentioned, Drs. Stokes, Hill, and Burke, as having been appointed to enquire into the dietary of the Irish prisons. Now, without meaning in the slightest degree to say a word against the high character of any one of them, I think it may be fairly asked, are they "the right men in the right place"? What possible experience can those gentlemen have of the working of the present scale of dietary, all of them citizens who perhaps have never been inside a gaol in their lives, as compared with the knowledge acquired by long experience by the medical officers of the gaols throughout Ireland (also surgeons to the County Infirmaries), whose services are ignored in favour of gentlemen who can only *theorise* on the subject; and one of whom, Dr. Stokes, from his deservedly extensive practice, cannot possibly give time and attention to the matter.

I believe the dietary requires amendment, that it should not be punitive, but such as would turn a man out of prison fit to go to work, but not so high as to become an inducement to crime in our impoverished peasantry. A long experience has shewn me that the number committed to our gaols, particularly in winter, is as much an index of destitution and distress as of disposition to commit crime.—I am, sir, yours faithfully,

AN OLD COUNTY INFIRMARY GAOL SURGEON.

Medical News.

ON Wednesday evening Dr. Guy read a valuable paper on the Sublimation of the Alkaloids before the Royal Microscopical Society at King's College. The audience, which was unusally large, were delighted with the wonderful results obtained, as well as with the beautiful crystalline forms produced in this way.

The Birmingham General Hospital has been presented with £10,000 by an anonymous friend through Mr. Sampson S. Lloyd.

GLASGOW FACULTY OF MEDICINE.—At a meeting held on the 4th inst., the following gentlemen were elected office-bearers for the session 1867-8, viz.:—President, Mr. James M'Innes. Vice-President, Dr. Hugh Thomson. Treasurer, Dr. Thomas Lapraik. Secretary, Dr. Daniel M'Lean. Librarians, Mr. George M'Ewan and Mr. James R. Buchanan.

The Garioch and Northern Medical Association held their annual meeting at Inverurie on the 28th ultimo. The members and several guests afterwards dined together, Dr. Mitchell, of Rayne, the president, acting as chairman.

DR. RICKARDS has been elected physician to the Royal Free Hospital.

The Liverpool Royal Infirmary has become entitled to £4000 under the will of Mr. Benjamin Scott Riley, of Bath.

The death of M. Bouley, Physician to the Necker Hospital is announced. His funeral took place on the 1st of October, at the church of Notre Dame de Passy.

A COMMISSION has been appointed to inquire into the subject of dietary in the Irish county prisons, with a view to the establishment of a uniform system. The Commissioners are Dr. Stokes, Dr. Hill, Poor-law inspector, and Dr. Burke, Physician to Steevens' Hospital.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Mr. John Roberts, Wickwar.—The numbers have been sent as requested.

Dr. Wilson.—1. As a Manual on Diseases of Women, that of Dr. Fleetwood Churchill. (Fannin and Co). 2. Lectures on Diseases of Infancy and Childhood. By Dr. Charles West. (Longmans). 3. We have not yet seen the abridged edition of Copland's Dictionary.

BOOKS AND PAMPHLETS RECEIVED.

An Essay on the Health and Medical Writings of Lord Bacon. By J. Dawson, M.D. London: H. K. Lewis, Gower-street.

The Journal of Cutaneous Medicine for October. London: John Churchill and Sons.

A few Thoughts concerning Infanticide. By. Mrs. M. A. Baines. London: Chapman and Hall.

Hardwicke's Science Gossip.

The Glasgow Medical Journal.

The Homœopathic Review.

The British Journal of Homœopathy. London: Turner and Co.

The Pharmaceutical Journal for October.

The Westminster Quarterly Review.

Messrs. Churchill's Literary Announcements.

La Médicine Contemporaine.

The Principles and Practice of Obstetric Medicine and Surgery. By Francis H. Ramsbotham, M.D. London: John Churchill and Sons.

On Hay Asthma. By William Pirrie, M.D. London: John Churchill and Sons.

Egypt and the Nile for Invalids. By John Patterson, M.D. London: John Churchill and Sons.

The Cholera, its Origin, &c. By F. E. Jencken, M.D. London: John Churchill and Sons.

St. George's Hospital Reports. Vol. II. London: John Churchill and Sons.

A Practical Treatise on Eczema. By Dr. McCall Anderson. Second Edition. London: John Churchill and Sons.

Rodent Cancer. Illustrated. By Charles H. Moore, F.R.C.S. London: Longmans, Green, and Co.

Hysteria, its Causes and Treatment. By F. C. Skey, F.R.S. London: Longmans, Green, and Co.

Journal de Medicine.

Illustrations of Disease of the Eye. By Henry Power, M.B., F.R.C.S. London: John Churchill and Sons.

Original Communications.

CHOLERA THEORIES.

No. VII.

DR. CHAPMAN'S theory of the nature of diarrhœa and cholera, and his proposed method of treating them, are merely special applications and exemplifications of his general doctrines; but though the theory itself is fundamentally simple, it deals with numerous and complex phenomena, and appears to have a surprisingly wide range of application. His work* is divided into two parts, which are preceded by an introductory chapter on "neuro-physiology," and "neuro-therapeutics," of which we have already given some account.

We will now advert briefly to the views expounded in Part I. on diarrhœa, and then devote the remainder of our space to Dr. Chapman's Cholera Theory. He maintains that all kinds of diarrhœa, however numerous and diverse their causes may be, are immediately referrible to a morbid condition of the nervous system—a condition consisting, as he alleges, in preternatural energy of those nervous centres which preside over both the functions and nutrition of the alimentary canal. Assuming that the phenomena of diarrhœa are, as he says, immediately produced by excessive functional activity of the liver, the pancreas, the intestinal mucous membrane, and of the muscular coat of the bowels, and that the doctrine already explained respecting the innervation of glands is well founded, it is obvious that the excessive action of the liver, pancreas, and mucous glands is caused by an abnormally powerful stimulus from the nervous centres innervating those organs. Moreover, as it is well-known that the peristaltic action of the bowels is wholly dependent on the nervous system, the conclusion that the several elements of diarrhœa are the immediate results of the vehement action of nervous force seems a reasonable one. Dr. Chapman also says that in cases of summer diarrhœa,—

"The blood-vessels nourishing the tube receive a larger supply of nervous influence from the vaso-motor nerve centres than before, and, hence, *contracting* more vigorously than natural, cut off to a proportionate extent the supply of blood to, and consequently the nourishment of the intestinal walls. The bowels thus lose their wonted robustness, and so become like a delicate lady with very little blood in her system, 'highly nervous,' and susceptible of being excited and thrown into excessive or convulsive activity by a stimulus which, in their healthy condition, would but slightly affect them.

This novel statement may possibly be true in respect to those cases of diarrhœa in which the disease seems to have been induced by the elevated temperature prevailing during the summer months in this climate; for in such cases, as Dr. Chapman observes, there is commonly a notable diminution of the temperature of the surface of the body, due as he explains, to excessive action of the vaso-motor nerves which thus exercise a constringing influence over the various branches of the arterial system. If this be so, it is conceivable that the arteries distributed to the muscular coat of the intestines may be acted upon in the way he describes. But we doubt the applicability of his statement as a general rule, for there are certainly many cases of diarrhœa in which no diminution of the heat of the surface of the body is observable. Indeed, in a large proportion of cases of infantile diarrhœa, associated with the processes of dentition, feverishness is a characteristic feature. We are surprised to find that of the different kinds of diarrhœa to which Dr. Chapman adverts, the symptoms of "summer diarrhœa" alone are enumerated. If in his section comprising the diarrhœa arising from the irritation of teething he had given the symptoms of that malady, he would, we doubt not, have recognised feverishness as one of them. Now, in cases of this kind, the sympathetic is not constringing the arteries of the skin; and by a parity of reasoning it may be concluded, we presume, that neither is it lessening the supply of blood to the intestines. This objection, however, does not in the least invalidate Dr. Chapman's general theory of the essential nature of diarrhœa. It only shows that of the several elements of that theory, one is not applicable in all cases. If without abating a jot of his faith in his hypothesis, he had given a more comprehensive description of the various symptoms of diarrhœa, or rather, had described the symptoms of each kind separately, he would have enumerated phenomena which he has ignored, the frequent presence of feverishness, and not seldom the passage of blood with the alvine discharges, phenomena which, as it seems to us, are explicable by his hypothesis and the explanation of which would but have strengthened his position.

Dr. Chapman has classed and designated the different forms of diarrhœa according to his conception of their causes, viz., as follows:—"1. *Diarrhœa originated by heat*; 2. *Diarrhœa originated by motion*; 3. *Diarrhœa originated by (electricity or its analogue) nervous irritation*; 4. *Diarrhœa originated by the mind (emotion)*; 5. *Diarrhœa originated by forms of force, either hitherto unrecognised as causes of the disease, or the* modus operandi *of which remains unknown.*"

"Diarrhœa originated by heat comprises the ordinary summer diarrhœa of temperate climates, and the premonitory diarrhœa of cholera, which, though not clearly traceable in a certain proportion of cases to their remote cause, are, in a great majority of cases, undoubtedly originated by heat. . . . . Summer diarrhœa is, in fact, cholera in its first stage, and only needs a further rise of temperature or intensification of that state of the atmosphere productive of the disease to become developed into its characteristic form. Indeed, in those years when cholera prevails, diarrhœa is not only increasingly frequent, but is sometimes as fatal as cholera itself."

In cases of summer diarrhœa, the remote cause, heat, induces, according to Dr. Chapman, a hyperæmic state, and consequently, increased nutrition and functional activity of both the spinal and sympathetic nervous centres, and thus establishes the condition productive in unduly sensitive persons of that excessive glandular and intestinal action constituting the disease.

Referring to motion as a cause of diarrhœa, Dr. Chapman says:—

"The most eminent physicists are now in the habit of speaking of heat as a mode of motion. The hypothesis already put forward, affords a physiological illustration of this conception; and, conversely, motion in the human organism, may for all practical purposes be regarded as the equivalent of heat. The diarrhœa which frequently accompanies sea-sickness is an illustration of this truth."

After describing each step of the process by which the motion of the ship induces diarrhœa, he says:—

"It will be seen that in this case motion originates irritation; irritation, propagated to the nervous centres through the sensory nerves, causes an unwonted afflux of blood in those centres; their functional power becomes thereby increased, and consequently, their reflex actions become proportionately more numerous and intense. The conditions of the nervous centres in question, thus induced by motion, are closely analagous to those which, in choleraic diarrhœa, are induced by heat; and the results so far as the bowels are concerned, though less in intensity, are the same in kind as those which heat produces. . . . . But, besides the motion of ships, there are other kinds of motion which will originate diarrhœa. Sometimes when sickness is induced by travelling in a railway carriage or other vehicle on land, the bowels become relaxed; but the most usual form of motion, which on land originates diarrhœa, is that of vigorous walking or running. Of course, only in so-called 'nervous' persons, *i.e.*, those in whom the spinal cord and sympathetic ganglia are in a state of chronic hyperæmia, or those in whom hyperæmia of those centres has been temporarily induced by the solar heat—does the remarkable phenomenon in question occur."

In his chapter on "Diarrhœa originated by (electricity or its analogue) nervous irritation," he says:—

* Diarrhœa and Cholera: their Nature, Origin, and Treatment through the Agency of the Nervous System. By John Chapman, M.D., M.R.C.P., M.R.C.S. Second edition, enlarged. London: Trübner and Co., 1866.

"Summer diarrhœa, *pure and simple*, is, according to the theory I have advanced, of almost wholly centric origin; but undoubtedly a considerable proportion of these cases would not be developed were it not that eccentric exciting causes give the *coup de grace* to the already abnormally hyperæmic nervous centres. The diarrhœa associated with sea-sickness has a simultaneous and two-fold origin: the exciting cause acts on the nervous centres directly, and indirectly through the agency of eccentric irritation, and thus of reflex action as already explained. . . . . Diarrhœa arising from the irritation of dentition, from irritating ingesta, from drinking impure water, from inhaling noxious gases, from ulceration of the bowels (as in phthisis), and the symptomatic diarrhœa of numerous diseases, are forms of the malady in which its primary cause operates in the first instance on the mucous membrane of some part of the alimentary canal, the nerves of which are irritated: the nerve currents (probably electric) to the sympathetic nerve centres and to the spinal cord are greatly increased in number and intensity; these organs, being thus unduly excited, receive an extraordinary afflux of blood; their functional power is proportionately exalted; their reflex activity is intensified, and the phenomenon of intense reflexion along the alimentary tract—diarrhœa, often associated with nausea and vomiting, pallor, coldness of the surface, feeble pulse, weakness of all grades, and, in its extreme form, with fatal collapse, necessarily ensues. . . . . .

"During periods of epidemic summer diarrhœa the great majority of its victims are children. The Registrar-General, in his weekly statement of July, 30th, 1866, which shows that during the previous week there had been 349 deaths from diarrhœa in the metropolis, observes—'The epidemic takes the form of diarrhœa chiefly in young children; thus 309 of the 349 deaths from diarrhœa last week, were children under five years of age, including 244 infants.' Of the 309 thus carried off, a large proportion suffered, I doubt not, from teething, and a considerable number were probably troubled, in the first instance, by offending materials in the alimentary canal."

Having successively described the several forms of diarrhœa originated by nervous irritation, and developed by reflex action, he adds:—

"Respecting those other examples of diarrhœa symptomatic of, or occurring in the course of, various diseases, no statement in detail is necessary; they are severally explicable on the general principles already enunciated, and the peculiar features and circumstances of each case will be easily appreciable by every intelligent physician who, having verified and accepted those principles, will readily modify and adopt the treatment which they dictate to the exigencies of each individual case.

"Summing up and characterising the causes of the several forms of diarrhœa briefly reviewed in this chapter, we may say that the *predisposing causes* consist in the high temperature, and, consequently, the disturbed electric conditions of the atmosphere in summer; that the *proximate cause* consists in the hyperæmic conditions of the nervous centres which the predisposing causes have induced; and that the *exciting causes* consist in the several forms of eccentric irritation of the terminal branches of the sensory nerves already enumerated—viz., dental irritation, ordinary offending ingesta, bad water, noxious effluvia, and the various internal excitants incident to disease, of which the glandular ulcerations of the intestines occurring in the course of phthisis are typical examples."

The chapter on "Diarrhœa originated by the mind" opens as follows:—

"Among the most remarkable and decisive proofs that the *proximate* cause of diarrhœa has its seat in the nervous system, is the well attested and indeed often observed fact that the disease is inducible by mental emotion: mental shocks of various kinds (especially fright) frequently produce it. Sir Thomas Watson observes:—'A curious exciting cause is to be found in *mental emotions*, and especially the depressing passions—grief, and above all, fear. A sudden panic will operate on the bowels of some persons as *surely* as a black dose, and much more *speedily*. Among the circumstances which *predispose* most persons to this kind of malady we may particularly specify *season*—the hot weather of summer and autumn.'"

The truth of this statement, which, considering its authority, needs no confirmation, is, however, corroborated by several curious illustrative facts of a kind familiar, no doubt, to many of our readers; but want of space precludes us from repeating any of them, and constrains us to content ourselves with giving their explanation in the author's words.

"In these cases congestion of the nervous centres appears, physically speaking, to be the primary fact. But I apprehend that the order of causation is as follows:—Terrifying or exciting impressions suddenly communicated, are conveyed to the sensory ganglia, and are thence distributed to the cellular structure constituting the cerebral convolutions; these are thrown into tumultuous excitement which is propagated along the motor tracts with the rapidity of lightning down the whole spinal axis, and laterally to the ganglia of the sympathetic; these becoming suddenly swollen with blood instantly act with intensely vehement energy, and diffuse their subtle stimulus in all directions. As the source of the powerful impressions which they have, in this case, received, is cerebral, so the *chief* direction in which the vaso-motor impulses are reflected is towards the brain: hence, quick as thought, the cerebral arteries are contracted with preternatural energy, and thus, in extreme cases, the brain being rendered comparatively bloodless, the person is stunned as if by a blow; the face becomes pallid, cold sweat sometimes exuding from it; if consciousness is not abolished, mental power is still greatly enfeebled; and, by the same agency and in the same manner as the phenomena of ordinary diarrhœa are induced, the strength of the whole muscular system is impaired, the temperature of the surface of the body is lowered, the muscular wall of the intestines is enfeebled, their mucous membrane exudes its appropriate secretion superabundantly, their peristaltic action becomes excessive, and thus diarrhœa originating in mental emotion is clearly due to the same *proximate cause* as that on which, as I have endeavoured to show, all forms of the malady depend."

Completely assured of the truth of the pathology of the different kinds of diarrhœa we have now traced in outline, having demonstrated the possibility of influencing the circulation in the spinal and sympathetic nervous centres, by applying heat or cold along the back, and led by that adventurous logic, to which he heroically trusts himself, Dr. Chapman boldly affirms that every kind of diarrhœa may be treated most rationally and with the greatest certainty of success by one and the same method, viz:—by the proper application of ice along the spine. Of course, if his several premises be granted, there is, as we said in the opening of our previous article, no escape from his conclusion. If, however, the doctrines forming the foundation of this pathology be disputed, and if the superstructure be proved faulty, the hypothesis is, nevertheless, so ingenious, and in such remarkable accordance with the most advanced truths of physiology, and, so far as we know, is contradicted by no facts within the range of either pathology or therapeutics, that it commends itself in the very strongest manner to every scientific physician. If it be really possible to lessen the amount of blood in the spinal cord and sympathetic ganglia by means of the spinal ice-bag, it seems fair to conclude that the value of the theory in question may be tested practically, for, in that case, if the theory be false, the use of the spinal ice-bag is not likely to exert any remedial influence on diarrhœa; whereas, if the theory be true, such an influence should be distinctly appreciable. It remains, therefore, for the profession to put the theory to the test of experiment, by the simple expedient of applying ice, in cases of diarrhœa, along the spine in the manner recommended by Dr. Chapman. We say in the manner he recommends, most emphatically; for, obviously, a man who propounds a new method of treating a disease, may justly claim from those who constitute themselves the judges of it, that they shall practice it in the precise manner he prescribes. And this remark is especially true of a method, the correct practice of which involves not only a scientific apprehension of the principles which underlie it, but a due observance of the dictates of those principles in the selection and adjustment of the apparatus used for the application of the cold. Dr. Chapman has given full and detailed directions, to which we refer those of our readers who are disposed to make trial of his method. We must content ourselves here with quoting from those directions what seems to us the most important paragraphs.

Having discussed the possibility of influencing, by ex-

ternal applications, the nervous centres presiding over the bowels, he says:—

"These considerations led me to treat summer diarrhœa by the application of the spinal ice-bag along the lumbar and lower dorsal regions in all cases; and when the cerebral and thoracic conditions are such as to permit the exertion of a sedative influence along the cervical and upper dorsal regions, to avail myself of the great additional power which may be exercised by applying ice in each cell of the bag at once along the spine. The application, in cases where there are no special reasons to forbid it, should be continued until the diarrhœa is subdued. Afterwards the bag should be applied at frequent intervals until the patient's strength is quite recovered. In ordinary cases it may be applied, after the purging has quite ceased, every four hours during a day, then every six hours, and then as the patient progresses, it may be used successively three times, twice, and finally once daily, until at length its use is discontinued."

"When I speak of applying ice along the spine, I do not mean that the ice-bag should reach along the whole length of the back, but simply that it should be nearly co-extensive with the length of the spinal cord. It should reach from the second or third cervical to about the third lumbar vertebra, or from a point about an inch below the base of the skull to the lower part of the small, or hollow of the back. . . . . It is of the utmost importance that a bag of suitable width be used. Ice applied in one of the small sized bags to the back of an adult would not produce an adequate effect; whereas, applied in one of the large-sized bags to the back of a child, it would, probably, by its great lateral extension, exert a depressing and otherwise injurious influence."

In applying the general principles of treatment, laid down by Dr. Chapman, of course, as he says—

"Great discrimination is necessary, inasmuch as the precise method adopted must differ in different cases. When the diarrhœa arises from dental irritation, it is desirable, while applying ice along the spine, also to apply it across the base of the brain, by means of what I call an ice-pillow, in order to exercise the utmost possible sedative influence on the medulla oblongata, and meanwhile to restrain the tendency to cerebral congestion which frequently accompanies this form of irritation. Diarrhœa resulting from ordinary offending ingesta, bad water, noxious effluvia, &c., should be treated, so far as the use of ice is concerned, exactly in the same way as ordinary summer diarrhœa—viz., by the application of ice along the whole spine; but, obviously, where there is reason to believe that the intestines contain crude and indigestible or undigested substances, the long-established practice of giving some appropriate purgative medicine should be resorted to. In restraining, by means of ice, the diarrhœa incident to phthisis, peculiar care is necessary, lest hæmoptysis be induced: in these cases the ice can only be safely applied, in the first instance, in the lumbar region; its application between the scapulæ is, as a general rule, dangerous, and can only be safely made after the physician has satisfied himself that there is no probability of causing either pulmonary hæmorrhage or congestion. Only so long as the dorsal nervous centres still remain in a state of considerable hyperæmia, can the danger in question be said to be absent."

If the remedial method now described should prove successful in any considerable proportion of cases of diarrhœa, it must be admitted as an invaluable addition to our power of combating this very destructive disease. We hear it repeated on all sides, that this disease is peculiarly amenable to the various medicaments which severally find special favour with different practitioners, and the majority of those physicians who most freely acknowledge the powerlessness of their art to cope with cholera, when the disease has fully seized on the patient, are still loud in their declarations that if the malady be attacked during the premonitory stage of diarrhœa, it is capable as a general rule of easy subjugation. We confess, however, to the conviction that if the spirit of candour so dominated the professional mind, as to induce the habit of publishing failures as well as successes, the prevailing belief in the general curability of diarrhœa, would be very greatly modified. "In fact," as Dr. Chapman observed [in 1866]:—

"If drugs may be confidently relied on to arrest summer diarrhœa, how is it that the disease, especially when it becomes epidemic, is so alarmingly fatal? As already stated, there were 20,052 deaths from diarrhœa in England in 1854, and 21,189 in 1857. Even last year, when during the six months from June to November inclusive, only 182 deaths from cholera are reported to have occurred in London; the metropolitan returns of fatal diarrhœa amount to 3137! It will surely be admitted that of the large number of persons destroyed by diarrhœa during the three years mentioned, at least, a considerable proportion had received medical aid, and had been treated by means of the various medicines usually resorted to in this disease with all the care and skill which the medical attendants would be sure to exercise. If so, the conclusion is inevitable, that summer diarrhœa is a malady which, in a considerable proportion of cases, defies the power of all drugs hitherto used to subdue it."

It seems to us impossible to avoid the conclusion here insisted on, and we observe that Mr. Simon, in his Ninth Report, substantially admits its correctness. Speaking of cholera, he says:—

"At present, our utmost power is but perhaps some very little ability of palliation. In the treatment of incipient cholera, there might certainly seem more room for hope; but competent physicians are not agreed that even here their art has much true efficiency against the disease."

We can only hope, therefore, that experience will verify Dr. Chapman's confident prediction expressed in the following passage:—

"When all has been done that can be done by means of drugs, and the disease still persists, the physician, who then finally resorts to the spinal ice-bag and uses it, with heat to the extremities, &c., &c., simultaneously as recommended above, will, I believe, become convinced that at length he has got possession of a remedial agent which will induce in his patient's system precisely those restorative changes which hitherto he has been trying in vain to accomplish. If the patient has been previously dosed with opium or calomel, or other drugs calculated to impair seriously the health of the nervous system, the healthy response of the organism to the influence of the ice is not likely to be so rapid and striking as it would have been had he been treated from the beginning by means of ice. But in cases where large and frequent doses of opium have induced dangerously persistent hyperæmia of the spinal and sympathetic nervous system, ice applied along the spine is, I believe, the only power capable of overcoming this condition."

Dr. Chapman has published ten cases of diarrhœa, treated successfully by the spinal ice-bag, and it is important to observe that the reports of five of these cases were severally communicated to him by three different physicians, and it must be admitted that their language is very encouraging, and even astonishing. For example, Dr. Moorhead, of Weymouth, writes:—"Having recently suffered from a most severe attack of diarrhœa, for which I took largely the usual astringents with opium, but without avail; I applied an ice-bag to the lumbar region which proved most grateful, and *immediately* arrested all the symptoms." Mr. David Mark Williams, Honorary Assistant-Surgeon to the Liverpool Infirmary for Children, describes three cases. The first, a boy aged 18 months, suffering from severe diarrhœa and vomiting, had been treated by astringent mixtures, &c., with little or no improvement, and his life was despaired of. All medicine was stopped, and a spine bag was applied on the morning of July 28th, sixteen days after medical aid had been sought on account of the malady. "While the ice was on, the child became quite warm and free from pain, and in fifteen minutes was asleep, whereas it was crying bitterly before the application." The child ceased to vomit at 3 P.M. the same day, and when the ice was again applied the same evening, he "fell into such a comfortable sleep, that the parents would not disturb him, and the bag was left on until he awoke at seven o'clock the next morning. An hour afterwards the bowels were moved once—a tolerably firm stool. Nothing more was done, and the child remained quite well." Mr. Williams reports one case of "summer cholera," so bad that he "should have considered the cholera Asiatic, but for the bile vomited." He began treatment July 28th, and August 1st reported.—"Cramps gone; skin warm; bowels not

moved; no vomiting; but the patient continues thirsty. Nothing further was done, and he was quickly quite well." Another case of "sickness and diarrhœa" is reported to Dr. Chapman by a physician who writes,—"The cold bag was applied in bed to the middle and lower third of the spine. The patient, a very intelligent gentleman, was able in about an hour to report the removal of sickness and pain; a warm glow over the limbs, and ere long the entire removal of the diarrhœa. On a subsequent occasion when the same disorder was brought on by over fatigue, the same remedy was employed with like success."

"I have been informed," says Dr. Chapman, "by Mr. Mardon Wilson of Philadelphia, that his brother, Dr. Wilson of that city, has found by experience of many cases that my method of treating *cholera infantum* is very successful. My own experience in treating the cases of infantile diarrhœa, due to the irritation of teething, has confirmed my most sanguine expectations. In these cases the particular symptom of spinal irritation, diarrhœa, is not only subdued, but the restlessness, fretfulness, and general irritability of the little sufferer are simultaneously overcome. Soon after the ice is applied along the back, the child usually goes fast asleep with the ice on, and when it awakes is refreshed and calm. . . . I may add that, as in children the vascular system is in its maximum state of activity, ice can be borne by them for a much longer time with impunity than is the case with adults."

Both Dr. Chapman's pathology and method of treatment of diarrhœa ignore the doctrine of contagiousness, or the presence of a blood poison, even in the premonitory diarrhœa of cholera; and in the opening of his exposition of the pathology of cholera, he says:—

"I must observe *in limine*, that the pathological doctrine which I am about to explain, does not at all preclude the supposition of a specific poison as the cause of cholera, although if such a poison be operative, it presumes its influence to be mainly concentrated on the nervous system. I do not affirm, neither do I deny, the existence of such a poison; but I maintain that no trustworthy evidence of its presence has yet been tendered by those writers who assert its existence most positively; and I believe that those subtle agents which produce the sudden and wide-spread developments of epidemic cholera, operate directly upon the nervous system, and not through the intermediate agency of the blood."

Dr. Chapman is of opinion that until the proximate cause of cholera, and every step of those complicated processes by which that cause produces the various phenomena of the disease, are thoroughly and indubitably understood, we are not in a position to form a correct conception of the nature and mode of action of the remote cause or remote causes of the disease, and are therefore as yet unable so to shape our inquiries and to give them such a scientific direction as is likely to result in the discovery of the object of our search. He insists therefore, on the paramount necessity of restricting our efforts in the first instance to the ascertainment of the essential nature of those structural and functional changes which constitute the disease, before we attempt to determine how those changes are primarily induced, and what are the most scientific and certain ways of enabling us to do so. In our next article we shall conclude our analysis of Dr. Chapman's work, by a description of the views expounded in Part II. on cholera.

THE FORCEPS.
WHEN AND HOW TO USE IT.

(Read before the County and City of Cork Medical and Surgical Association.—Session 1838-39.)

By W. H. SANDHAM, M.R.C.S.E.

To the parturient female the forceps is an instrument of incalculable benefit, as being the only means left, in innumerable instances, to the obstetrician to save from destruction, if not parent and child, most certainly the former, or putting an end to her parturient sufferings, and saving her in after-life from the miserable consequences of fœtal pressure, long continued, vesico vaginal mischief, with its life-long miseries, banishing, perhaps for ever, conjugal comforts, so that the partner of her pilgrimage is also whirled into this vortex of misfortune. To the accoucheur it is an instrument, in the hands of one who knows how and when to use it, that makes him calm at the bedside as long as he sees the presentation is such an one that whenever he thinks well of using it, he can do so, with safety to parent and child, cutting short no doubt the sufferings of both—(for who will deny that the fœtus feels under such circumstances)—and economising his own valuable time, though of a very minor consideration indeed, when compared to the circumstances of her, who is, by the inspired penman, described as suffering "the pains of hell." When to use the forceps? I consider a question of great moment to father, mother, and child, and I think the question very imperfectly answered in any of the authors I ever consulted, in fact not written of as the vital importance of the case demands. The clever, persevering surgeon, Mr. Marion Sims, of New York, who had the fortunate, or rather unfortunate opportunity of boasting, if I may so speak, of having performed, on the same individual, twenty-nine successive operations, with a view to cure a vesico-vaginal fistula without success, and graphically detailing that the thirtieth operation succeeded, when conducted with wire ligatures on the plan of Professor Simpson, to whom be all the honour he so well deserves. Such a one, I must certainly admire, but do not envy. I would rather be able to boast that, by the early and judicious application of the forceps, I saved the lives of many children, and rescued many mothers from such a miserable life-long affliction, thereby depriving the scientific surgeon of the opportunity of exercising, perhaps, his favourite operation. In a former paper I read before the association, I casually advocated the earlier and more frequent use of the forceps. It is all very fine for some to say, oh, that man is very fond of converting simple labour cases into instrumental; such a one has more instrumental cases in a given time, than I have had for my whole professional life. I think this quite possible. Take two practitioners, the one in aristocratic practice, the practice of the other being principally among the democratic class. While the former gets his retaining fee, and conducts his cases from the beginning, why look for or expect, in fact, why should he have many instrumental labours? While his brother practitioner is, in the greater number of cases, sent for after labour has continued for 24 or 36 hours—yea, even for days, and only sent for, because the midwife fails in managing the case; the instrumental cases of a practitioner so circumstanced, should be expected to quadruple those of the aristocratic accoucheur. I am now many years practising as an accoucheur in Cork, and from the fact of my having been a dispensary officer for several years in a rural district to the north of the city, I have had no small practice amongst what I have already styled the democratic class, and were I now to classify my labours, I am sure the instrumental would compose a large proportion. This merely shows I was only sent for when what would have been natural in their results, were made instrumental by mismanagement or unnecessary delay. Though so long using this instrument, I never yet had to regret its early application, but on now looking back on my early practice, I regret much not having used it more frequently and earlier. Often have I seen rupture of the uterus, low inflammation of the pelvic viscera, peritoneal inflammation ending in certain death; or sloughing ending in vesico-vaginal, urethro-vaginal, or other fistulous diseases, involving suffering for life—fatal hæmorrhage, and death of the child, from compression of the brain or continued pressure of the uterus interfering with its circulation—all, all, the consequences of delay. Burns says, "Taking the proportion of deaths in the parturient state to be, including all disasters whatever, as 1 to 92, it is most important to observe the progressive fatality arising from delay; suffering above 30 hours destroys 1 in 34, in others 10 hours, the danger more than doubles, for 1 in 13, then 1 in 11, and next 1 in 8—to say nothing of the children." The circumstances enumerated as warranting the use of the forceps are, permanent or

partial impaction, or locking, arrest, want of uterine action, the head being in that position in which it can be easily applied, etc., to which I will add the necessity or the wish you may have to shorten or put an end to painful uterine efforts, so that, between permanent impaction and that cessation of progression, consequent on simple uterine fatigue, there is a long list of circumstances that will make one case differ from another, and call for instrumental interference. Now, putting out of the question all external or collateral circumstances necessitating early instrumental assistance, I care not what moment of the second stage of labour that you are satisfied there is impaction or arrest, or even a disposition on the part of the uterus to cease its periodic contractions—a disposition on the part of the uterus, I always consider, as evidence of some difficulty of being present in propelling the child—provided, I say, provided the membranes are ruptured, the os uteri dilated or dilatable, and the head not above, but within or below the brim of the pelvis, the sooner you apply the forceps the better for the mother, the child, and the practitioner. Under such circumstances is delay warrantable? it should be considered criminal. Burns says, "Delay may be longer in arrest than in impaction," why delay in either case, unless to avoid trouble? What harm can you do? What suffering inflict? What misery may you not avert? I say deliver the woman while the uterus is using every exertion to do so, not after the exertion is gone for ever, or to recur with less vigour. After doing so, the placenta, in general, speedily comes away, and no hæmorrhage from want of uterine contraction will follow. I never had hæmorrhage nor a fatal termination in any case, where the forceps was early applied; delay I say is dangerous. Some one will say, many of his labours should be considered natural, not instrumental—granted, but I would wish all labours conducted on this principle to be considered as natural, for, after all, they are cases of women naturally, gently, and scientifically delivered. As to cases when the head of the child is large or hydrocephalus, and cannot be forced by uterine efforts within or below the brim of the pelvis, all such I pronounce non-forceps cases. You may get on the blades, you may pull and drag away, and may deliver by brute force, but what must be the consequences. I advocate with Burns, Hamilton, Oriander, etc., the early use of the forceps; but I go further, and say, I use it the moment I am satisfied I can do so without danger or injury to mother or child, with the sole view to limit or put a stop to the sufferings of the woman. Well may I say with Burns, "Many eminent men have placed an undue confidence in the power of nature, and have been hostile to the use of instruments. I was for a long time influenced by their high authority and plausible arguments, but experience has compelled me to adopt the opinion I now hold." Now, as to how to use the forceps – no one can give or lay down rules to answer every case. You may direct the pubic or sacral blade to be applied first, or if you will, pass your first blade along the hollow of the sacrum, and then sweep round and so on, but these directions will not suit every case; with regard to using the one or the other blade first, I am led by the following circumstances:—If I have a nervous irritable woman to deal with, after assuring her of the safety and ease of the operation, I first pass that blade which I know on examination will be most easily introduced, and after I pass it I talk encouragingly to her for a few minutes, and then proceed to introduce the more difficult one, and if the first is laid on so as to occupy a good position, it will be a good guide to the second; but if the patient is of strong mind, I invariably pass the more difficult blade first, and adapt the application of the easier one to the position occupied by it. I like to introduce the blades, if possible, in the same direction as I intend to employ traction. I am against the sweep as more likely to do mischief to the soft parts, and to the inexperienced I think more difficult to pass. The mechanical accoucheur can apply and deliver in cases where another practitioner, deficient in mechanical ideas, will fail; but the position of the head, the formation of the pelvis, the presence of tumours, soft or bony, etc., must regulate the mode and manner of application. I say, study well the position of parts, as you find them, before attempting introduction, and he must be stupid, indeed, who cannot put on the tongs. Having said so much with regard to when and how to use the forceps, I will illustrate my views by the reading of two cases, and make a few closing observations.

I lately attended a young woman in her first labour, and conducted the case from the beginning, her mother being present all through. When the presentation arrived at, and pressed against the perineum, there it rested for about two hours, I concluded from uterine fatigue. I was most anxious to get home to one of my own children, who was reported to me as being dangerously attacked since I took charge of the case; I said to myself if I propose instrumental interference to the mother she will be displeased, yet I know I can now, not only, deliver safely, but save the sufferer some hours of doubt, uncertainty, and pain. I sent the mother down stairs to prepare baby things, etc.—the daughter was inexperienced—I got my short forceps, and, while lying on her side, easily applied it. Up the mother came and by my side she stood, but the bed-clothes concealed my scheme. I commenced gentle traction, pain at once followed and assisted me, and I delivered her in a few minutes—the funis was about the neck of a living uninjured boy. I threw aside the quilt, and exhibited what God sent—the blades still on the head—and an exclamation of joy and approbation burst from the mother's lips. I ask, was I right in my practice? I saved my patient pain and myself loss of time.

Such is a case, I was going to say, illustrating simple cessation of progression, but recollect the chord was about the neck, and this I consider the reason why the uterus ceased its periodic efforts, indicating to any one at all acquainted with the tactics of this organ that opposing force was present interfering with expulsion. The next is a case of perfect permanent impaction.

On a late occasion, I was sent for to a woman between thirty-five and forty, who was reported to me as being in labour of her first child from Sunday to the Thursday evening. I saw her. On examination I found the head impacted and a face presentation, scalp elongated. I with ease put on the forceps, but no effort of mine would move the head. I then asked for assistance, and Dr. —— was brought to me. He begged that another effort would be made in his presence. I again laid on the blades, and showed him no effort of mine advanced the presentation in the least. I at once perforated, and with the blunt hook, after some exertion, delivered the woman. From first to last there was no uterine action to assist me, but the moment this organ was relieved of the presence of the fœtus contraction followed; the placenta was expelled, and no flooding ensued; the woman rallied for a while, inflammation of the pelvic viscera, and vesico-vaginal fistula ensued. After a few days her miseries terminated in death. I ask, would such be the termination of this case were it conducted from the beginning by a practitioner of any intelligence? I say no. Delaying timely interference surely sacrifices the child, and places the mother's life in jeopardy. But some one will say, "You forget there is such a thing as the vis a tergo, or such an individual as Mrs. Vis Medicatrix Naturæ. Whereever this kind creature is located, whether seated in queenly magnificence on the pineal gland, or walking with majestic step the iter a tertio ad quartum ventriculum, or, peradventure, astride the bronchial bifurcation, enjoying the fresh air and directing the chemical operations in that stormy region, or seated on the corpuscles of morgagni, laved by the scarlet current, or, as I sometimes have found her, snoozing beneath the tendinous expansion of the mitral valve, allowing, by her carelessness, the vital stream to stagnate, or, perhaps, she is to be found standing on that nutral hill, the tuberculum loweri, her eyes beaming with intelligence, wand in hand, issuing her orders as the purple flood of life sweeps by, directing this young gentleman with lips of blue to run along the pulmonic corridores, and

enjoy himself in the open air until sent for, or ordering this Miss Drop-of-virgin-purity to rush along the systemic pleasure grounds by the shortest route, to the relief of the parching tongue or sympathizing eye. This kind lady I must acknowledge to be a very clever dame, but allow me to remind the *ad naturam* gentleman, that Dame Nature sometimes gets into a passion, and works mischief too. Behold her once more astride her favourite saddle, the bronchial bifurcation, I see her in a passion, yea, a very whipster, and for what? Because Mr. Lung, the gentleman on her left, has too roughly tossed her silken curls, or dashed her mantle's corner in her eye (accidentally, no doubt?) Down she jumps, exclaiming, "I will limit your impudence, Mr. Lung, you are grown too bold of late;" she steps into her pleural chamber, on evil thoughts intent, takes up her wicked brush, well dipped in her solution of plastic lymph, and with the skill of a well-educated artist, coats the costal pleura over, and retires. Mr. Lung's first effort is fatal to his liberty; he is sorely crippled, all but suffocated. Is nothing to be done? Is Mrs. Vis Medicatrix not to be checked in these her wicked pranks? Is Mr. Science to stand idly by and see Dame Nature strangle Lung outright? No, rather let him with his steel point armed, drive the wench away, and then step in, and with his iodo-mercurial brush wash all this Gluey Mischief off. Such being clearly the duty of Mr. Science, am I to allow partial impaction to become permanent, or simple arrest become impaction, or allow periodic uterine action to struggle on 'till tired and worn out? Being an *ad naturam* man only so far as Dame Nature does not appear to go astray or become dozy, I say, take the forceps, and, let me beg of you, with all gentleness of manipulation, deliver. This course adopted in time, will often secure you a grateful squeeze of the guilded hand, give you the opportunity of seeing the beams of joy dart on the beauty of a living, uninjured cherub, and ere long you will behold woman's sweet form move gracefully along, the rose eclipsed by beauty's blush, love sparkling in her eye, not having suffered from hæmorrhagic loss.

Although I advocate this early, and what some may consider bold, use of the forceps, I only do so in the hands of men experienced in its use. I would advise the young practitioner to pause ere he handles it, but when induced to do so—gentleness of manipulation, calmness of temper, but steady perseverance should direct his steps; and if he does not possess nice mechanical ideas, I would advise his often leaving it rest quietly in its case, rather than glory in an exhibition at the bedside—

> The *ad naturam* man may say,
> Sir, I don't like your plan,
> But I assure him once for aye,
> I'm still a forceps man.

Having laid before you, Mr. President and gentlemen, my views with regard to when and how to use the forceps, I will be sincerely gratified if even a small majority of the many experienced obstetricians I see around me support my views. The subject is interesting and important, and I hope will now be well thrashed. I for one, if I can be shown a better mode of proceeding, will at once forsake the worse for the better plan. I have not come here to thrash, but rather to be taught. I have avoided accumulating evidence or giving extracts from the works of various authors. I simply give you the result of my experience, and if experience or opportunity do not enable us to pick up some little good, and reject a great deal of what is bad, our time has been spent in vain.

WHEN TO INTERFERE WITH, AND RUPTURE THE MEMBRANES DURING PARTURITION, AND THE BENEFIT OR INJURY LIKELY TO FOLLOW, CONSIDERED.

In the paper above, "The Forceps, When and How to Use it" (read before the Society referred to), I endeavoured to point out the advantages of early delivery by the forceps. I will now refer to the advantages very often gained by strict attention to the state of the membranes, and rupturing them without hesitation. I can best make myself understood by the history of a few cases, and comments thereon.

Case 1.—I was called on in a hurry to attend Mrs. —— in her third or fourth confinement. I found her surrounded by some friends, giving all the help in their power; she had powerful and frequent pains, she would rear to the roof of the bed, but being restrained, and was in this condition some hours. On examination I found the os uteri fully dilated, the membranes well down in the pelvis, and, when the pain subsided, felt the head well within the pelvic brim; to the touch the membranes felt thick, the pains forcing them down with great violence. I said to myself, "these are like a piece of leather breeches," and at once determined to rupture them; I did so, and immediately the woman cried out, "Oh! sir, you have given me great relief;" the head came well down the very next pain, and delivery was effected by the second, the placenta speedily followed. I was not there three quarters of an hour, and I left her and her infant well.

Case 2.—I was called on by Father ——, and requested to go and attend a woman he had prepared for death, and he described her labour as fearful. I found her screaming dreadfully, and rearing and tossing about her bed. On examination I found the membranes as described above, and at once ruptured them, and the labour was rapid and safe, the woman declaring that whatever I did gave her the greatest relief; mother and child did well.

Case 3.—On Friday week I was sent for by Mrs. ——, who suffered fearfully in her first labour from the previous Monday; she had a doctor and nurse-tender. When I arrived a married friend present described her sufferings to me, and the nurse-tender coming in said—"Oh! doctor, she suffered a good deal from *cold pains*" (cold or hot they seemed pains in earnest) "but she must take time, she will be all right by and bye." I found the os uteri well dilated, and a round firm tumour presenting. I, for sometime, was in doubt whether it was the bare scalp or the membranes, but the pain moderating, I satisfied myself, and determined to rupture. I endeavoured to do so, and I never do so but during a pain, with the nail of my forefinger, a very convenient instrument, but I failed, so tough were the membranes. I then ruptured with a probe, and the woman experienced great relief; next pain the head presented, but there being some delay in the advance, I applied the forceps, and delivered her of a living male twin. Next pain I discovered a footling presentation, which I gently assisted away; it was dead; the whole surface of the abdomen was livid, and the chord from the umbilicus to the placenta was like a good-sized gut filled with black blood; two distinct placentæ followed, and I left my patient well. The first twin still living, and the mother continuing well. In none of the three cases related did hæmorrhage occur. I ask, if those membranes were left to Dame Nature, how long should these three women have to suffer? All were evidently suffering tedious, painful labour, caused by the tough, unyielding nature of the membranes.

Burns, in his work on Midwifery, in the chapter enumerating all the causes of tedious labour, occupies but *five lines*, page 427, in his remarks on the strength of the membranes as a cause of tedious labour. He says—"Preternatural strength of the membranes *may also* (they often do, as proved by my cases), to a certainty, prove a cause of tedious labour. This is at once obviated by tearing them, which is done by laying hold of them when slack, during the remission of the pains. It sometimes requires a considerable effort to rupture them." I take exception to the time and manner of rupturing the membranes here recommended by Burns. I rupture at the time the uterus is endeavouring to do so, and when, consequently, the organ is best prepared to do so. I think tough membranes a far more frequent cause of tedious labour than rigidity of the surrounding soft parts, which I find instantly to improve

after the membranes are ruptured. The muscular structures around instinctively assist the uterine efforts, and could not but feel rigid and hard to the touch.

It may be said the three cases related were cases in which every accoucheur of experience would at once adopt the course I advocate, but we know there are many who would argue against the practice. However, I have never yet been sorry for having ruptured the membranes in such like cases; but I go farther, I am of opinion that in cases, *apparently* very different cases too, where many authors and lecturers pronounce it dangerous, and likely to give rise to tedious labour, a change of position in the fœtus, and a certainty of subsequent hæmorrhage. Early rupturing the membranes, in nine cases out of ten, is followed by happy results, provided the practitioner is guided by the following rule :—

If, when at the bedside of my patient for some time, and I like to be present as constant as possible, until the labour is over, I have a dilated and dilatable os uteri, and I find during the pain that the propelled membranes make no advance, and that the presentation is natural, and the head well in the brim of the pelvis, I have no hesitation to rupture. They are not naturally ruptured because of the strength of the membranes, or the head, during the pain, so occupies the brim, that the liquor amnii above the head cannot pass down to propel and burst the membranes presenting below. Therefore, I rupture, and, keeping within such a rule, I never had reason to regret the adoption of the practice. I have frequently witnessed more painful labour, before the membranes gave way, than after.

Now, take a case of preternatural presentation, where turning is advisable, will the *ad naturam* man, I ask, tell me in consultation—If you rupture the membranes, introduce the hand, turn and deliver, in this case the result will be disastrous? Well, I think, he would not argue thus. If not, the whole case is in favour of my practice.

What on earth is Dame Nature or Miss Vis medicatrix naturæ endeavouring to do? This—She is endeavouring, as safely and as speedily as she can, to relieve the uterus of its contents. If she has placed the fœtus in a preternatural position, the *ad naturam* man will, unhesitatingly, interfere, but if the membranes are preternaturally thick and tough, too tough for the uterine throes to tear without a long, painful, and powerful effort, he will hesitate for hours, or, perhaps, never assist by simply rupturing those membranes, often, as I said above, as tough as a piece of leather breeches.

This brings me to a subject of some importance I will briefly comment on :—The tediousness of labour caused by the twisting of the umbilical cord, once, twice, or thrice, about the neck or limbs of the child. I think this also a very frequent cause of tedious labour, and often calls for early rupture of the membranes, and the early application of the forceps.

About a fortnight since I left Cork at eleven o'clock at night, to attend a farmer's wife, four or five miles from Mallow, in labour with her fifth child. I found her as she was described in distressing labour, since seven o'clock A.M. of same day. The membranes gave way very early, the presentation was natural, and the scalp reached near to the external os. The labiæ were enormously swollen from the mauling she got from the nurse-tender during the day. The head advanced during the day no further than I found it after midnight. The pelvis was well formed and roomy, and the woman vigorous. On my examination, meconium escaped in abundance, and I pronounced the child dead, and said I knew of nothing to cause the tediousness but the probability of the chord being twisted about the neck or limbs. I delivered her safely with the forceps, and, as soon as the head was delivered, I found the chord as I predicted, like a piece of jackline twice twisted round the neck, the secundines followed immediately, and I left the woman well. I trust I have written so as not to be misunderstood. I think the man that knows when and how to use the forceps, when to interfere and rupture the membranes, and have an eye to the possibility of the position of the chord becoming the cause of tediousness, and have chloroform at his command, is one who can best, and safest, and speediest, conduct a case of labour to a favourable termination—that condition of women, which, of all others, requires the greatest sympathy and attention, whose sufferings the inspired penman writes of as "the pains of hell," and graphically describes her, when her labour is happily terminated, as forgetting those pains of hell "for joy that a man is born into the world."

REPORT ON WINE.

[SPECIALLY PREPARED FOR THE MEDICAL PRESS AND CIRCULAR.]

III. PORT.

(Continued from page 243).

SINCE our last article on this subject appeared, the port wine question has assumed larger dimensions, and a controversy has taken place, in which no slight acrimony has been manifested. The strictly impartial manner in which we have expressed our opinions renders it unnecessary for us to reiterate them or attempt to support them. We have only, therefore, so far to notice what has since appeared, as to keep our readers fully informed of all that is passing, and to criticise such statements or opinions as may seem to us necessary. We have, from the first, drawn to a considerable extent on official documents, and, in the present aspect of the dispute, we feel it necessary to indulge in rather lengthy quotations, as the only possible means of doing justice to ourselves and our readers.

First of all, we beg to submit the following abstact from a blue book, dated May, 1867:—

"MODE OF MANUFACTURE.—The grapes (gathered by women and children) are carried in baskets, twenty-one baskets generally yield a pipe, to the 'lagar' or wine press, into which they are thrown without other separation than of the white from the black. The first liquor drawn from the crushing of the grapes by each other makes a rare white wine of very superior quality, hardly known out of the country. The press is then trodden by gangs of men (gallegos generally) for thirty-six hours, after which the must is left to ferment. If the must is green it takes thirty-six hours, if sweet and sugary, four days to ferment. The drawing off of the wine is a delicate operation, as the husks and stalks, if left too long on the surface, mix with the liquor and spoil it.

"All port wine hitherto exported for the English market is largely mixed with brandy, and is composed almost quite as much of elderberries as of grapes. The way in which, what in England is called port wine, has hitherto been manufactured for the London market is this: the Paiz de Vinhateiro abound in elder-trees; the berries of these trees are dried in the sun or in kilns. The wine is then thrown on them, and the berries are trodden (as, previously, the grapes) till it is thoroughly saturated with the colouring matter of the berries. Brandy is then added in the proportion of three to sixteen gallons to every pipe of 115 gallons. This is the composition of all the port wine hitherto drunk in England. No pure wine, no wine not thus specially adulterated for the English taste, was allowed by the Government Committee of Tasters to pass the bar of the Douro for export to England before the year 1865. This system, by the law of that year, was abolished. The trade is now perfectly free, and there is, therefore, no reason why pure wines should not be exported to England.

"The natural strength of pure port wines, however, has been proved by the experiments of Mr. Forrester, which deserve to be noticed here. Some wine was made by him from the vintage of 1834 (a remarkably fine year) in the Atto Douro (the best wine district), on the French plan, without the admixture of one drop of brandy. It was bottled the moment fermentation was complete. On arrival in England it was found to contain already 27·2 degrees of alcohol. This quantity of alcohol had been naturally generated, therefore.

"Mr. Harris, from whom the samples were obtained, says of this wine:—'It was valued in London at about £8 or £9 per pipe, being considered excessively harsh, and inferior to the low wines of France. The cost to the maker could not be less than £25 to £30 per pipe, so that, in a commercial point of view, the facture could not have been more disastrous.'—(See

Mr. C. Bernard's report, Parliament Papers of April 29, 1862.)"

We have already done full justice to the remarks of Consul Crawford and others, and must now, therefore, turn to the statements of Mr. Lytton, Her Majesty's Secretary of Legation at Lisbon, to whose pen the above quotation is due. That gentleman, it will be noticed, in this report, dated last January, asserts that until 1865 no Douro wines were allowed to be exported to England until they had been approved by a committtee of tasters. He declared that the arbitrary taste, which was compelled to be satisfied by the grower, was not in accordance with the natural wines of the district, and, further, that the qualities thus demanded by a false taste, imposed on the exporter, were imparted by means of brandy and elderberries. A description of the sophistications practised was then furnished. It should be remembered that Mr. Lytton had distinctly fixed the date—1865—at which these restrictions were abolished, and acknowledged that there is, at the present moment, no hindrance to the export of pure unadulterated port. Still his statements were not likely to pass unchallenged by those interested in the port wine trade, since they would seem to imply that all the present stock, of even the choice vintages, must be not the natural wine of the country, but a fabricated *liqueur*. We were, therefore, quite prepared for the *Wine Trade Review*, *Ridley's Circular*, the *Commercio do Porto*, and other organs to join in a loud chorus of opposition to Mr. Lytton's statements, and to endeavonr to invalidate them. We were, however, scarcely prepared for the tone they have taken. When commercial interests are called into play, the amenities of literature are certainly scarcely worthy of comment. Yet, when a great question of fact is to be settled, that side will always be suspected which commences by bandying about unpleasant epithets. It is so easy, in place of disproving an assertion, to call the person who makes it "unscrupulous," to declare it is "totally unfounded," to pretend that a "hoax," has been perpetrated by some "mischievous informant," and to insinuate a charge of having "recklessly slandered" the highly respectable people, who, instead of refuting the charges which have thus roused them, indulge themselves in these and other choice expressions.

These opponents could scarcely have complained of being slighted, had Mr. Lytton, finding no argument in their writings, left them unnoticed. Challenged, however, in this manner, his facts being impugned with a haste and heat that might almost serve to excite a suspicion that they were undeniable, he has, in a later communication (just printed in the "Reports of Her Majesty's Secretaries of Legation,") replied in a manner calculated to teach these advocates a lesson of caution. His rejoinder gives a crushing series of facts and arguments that will go far to satisfy the public mind of his moderation and truthfulness, and will place the port wine question in a clearer light than that in which it has for some time been regarded.

The first point to which we shall call attention in Mr. Lytton's last report, is the manner in which he disposes of the fact that the law above referred to was in actual operation down to 1865. He quotes the reports of his predecessors to show that what he has stated is no more than has been frequently mentioned in the Secretaries Reports. Sir Augustus Paget, in 1857, Mr. Barron, in 1861, and Mr. Herries, in 1862, have both reported to the Government of Great Britain this fact, which was familiar to every one interested in the matter, and which was incidentally alluded to in our last article. The same authorities and several others are next cited in support of the statements made respecting the adulteration of port wine, and as this question is one of the most important in reference to its hygienic and remedial use, we shall avail ourselves of the same and similar testimony.

We find that in 1859, Mr. Barron declared, that "to be approved" (*i.e.*, for exportation) "Douro wine must possess certain qualities which the grape juice alone cannot impart." —(Secretaries' Reports, No. 3, 1860.)

In the same report he says :—"A simple unloaded wine cannot lawfully receive a 'bilhete'" (permit for exportation.)

In report No. 4, 1861, he says :—"There are two practices which constitute absolute adulterations, and which were formerly punished by law, but are now tolerated without any restriction, and actually encouraged by the system of tasting now in force. I allude to the admixture of gerupiga and elderberry juice."

Elsewhere he states that "what is exported from this country" (Portugal) "as wine is, in reality, a compound of wine and brandy." And in another part of the same report he thus writes :—"Various circumstances have led to the production of the present type of port wine as exported to England. One of them was the extraordinary vintage of 1820, which by its intrinsic richness and ripeness, gained the highest approbation. Since then, rich, ripe, and full-bodied wines came into fashion, and these qualities had to be imparted by artificial means. The provadores always classified thick, dark, syrupy wines as first-class" (*i.e.*, approved for exportation) "and pure light wines as second-class" (*i.e.*, not approved for exportation.) And the special qualities thus exacted by the provadore as a condition to the permit to export, "the growers of light wines," he adds, "endeavoured, by sugar, spirit, elder, and gerupiga to imitate."

In 1857 Sir Augustus Paget reported, that "it is a fallacy to suppose that such a thing as what is called pure port wine exists."—(Secretaries' Reports, 1858.)

In 1863, only two years previous to the abolition of the law, Mr. Herries, then secretary to Her Majesty's legation at Lisbon, observed that "there is the *clearest evidence* to prove that the genuineness and purity of the thing called port wine never have been, as indeed, they never could be secured by laws and regulations which, *requiring, as they do, certain special qualities, in accordance with an artificial standard*, provoke the adulterations *notoriously practised* within the circle of the demarkation."

Before a committee of the House of Commons in 1852 Baron Forrester, whom we have already had occasion to refer to, said :—"If the wine be unsophisticated, as a matter of course, by law, that wine is not allowed to come to this market; the law distinctly prohibits its being shipped thence." And again, in the course of a detailed and interesting reply to the following question from the chairman, "Will you describe the port wine from its growth to the period of exportation, specifying what are the manipulations by which its general qualities being lost, acquires those of blackness, sweetness, and strength?" Baron Forrester says, "It is quite usual for a man to reason thus : my bilhete may be worth £3, and if I expend £1 in the purchase of elderberry, I shall give the additional colour the law requires ; ergo, I will use my bilhete, and gain £2."

We might, had we unlimited space at our disposal, produce a large amount of evidence given before the same committee, all tending to re-establish the fact that port wine was necessarily sophisticated. We cannot however do so on this occasion. We think the evidence adduced already ample, and pass on to the nature of the adulteration Mr. Lytton had mentioned elderberries and brandy, and the manner in which he justifies his statements in reference to them, is so complete an answer to those who have accused him of "reckless slander" that we shall give it in his own words, merely omitting the use of italics :—

"And first, as to the elderberries. Again, for the sake of precision, I ask permission to quote my own words on this subject. They are—'The Paiz de Vinhateiro abounds in elder trees. The berries of these trees are dried in the sun or in kilns. The wine is then thrown on them and trodden (as previously the grapes) till it is thoroughly saturated with the colouring matter of the berries.'

"These are my words. Allow me now to record those of Baron Forrester before the committee of 1852 :—

"'250. (Mr. Anstey, chairman.)—You have mentioned in your evidence that elderberry is freely used in Portugal for the

urpose of dyeing the wine, and giving it the blackness which so much desiderated. . . . . In what way is the elderry used for the purpose of dyeing the wine?

"'251. (Mr. Forrester.)—In a dry state, dried in the sun, during wet weather, in kilns.

"'252. Is it simply thrown into the vat?—No, the wine is rown upon the husks of the elderberry, and hence the colouring matter is extracted by being trodden upon by the men who ead the grapes.'"

"Again, allow me to quote from Mr. Barron's report of Febary, 1861, the following:—

"'Elderberry is grown and used extensively for the sake of colouring matter. It is trodden with the grapes in the gar.'"

"As before, for the sake of precision and convenient refere, I will now place my short statement respecting elderries side by side with the above-cited authorities for it:—

"'The Paiz de Vinhateiro ounds in elder trees.'"—Mr. tton.

"'Elderberry is grown and used extensively for the sake of its colouring matter.'"—Mr. Barron.

"'The berries of these trees dried in the sun or in s.'"—Mr. Lytton.

"'Elderberry is freely used in Portugal for the purpose of dyeing the wine. . . . . It is dried in the sun, or, during wet weather, in kilns.'"—Mr. Forrester.

"'The wine is then thrown them and trodden (as previously the grapes) till it is roughly saturated with the uring matter of the ber-'"—Mr. Lytton.

"'The wine is thrown upon the husks of the elderberry, and hence the colouring matter is extracted by being trodden upon by the men who tread the grapes.'"—Mr. Forrester.

"'It is trodden with the grapes in the lagar.'"—Mr. Barron.

"Mr. Johnstone, of the London Custom-house, a gentleman whom I shall presently have occasion to refer more particularly, and whose keen intelligence is exercised upon an unrivalled practical experience of this subject, has estimated the erage quantity of elderberry matter in every 115-gallon pipe port wine entered at the port of London to be as much as gallons—'either dry or in gerupiga;' gerupiga being, ording to Mr. Barron, 'a strong sweet cordial, composed of third brandy and two-thirds must of wine, coloured with r juice, and sweetened with muscovado sugar.'—(Secret Reports, No. 4, 1861.)

"I think I need say no more at present about elderberries.

"Now, about brandy. What I stated was this—'Brandy is added in the proportion of from three to fifteen gallons to pipe of 115 gallons.'

"Well, to revert to authorities already cited: the evidence of Forrester before the committee of 1852 is, in the reported eedings of that committee, as follows:—

"'87. What is the minimum, and what the maximum, ntity of brandy in a pipe of port wine when it reaches this ket?—If the wine be perfectly fermented, as a matter of rse, one-half the proportion of spirit would be requisite. If e not fully fermented, then double the proportion.

"'88. Will you state it in gallons?—The minimun? There o port wine, to the best of my belief, comes to this country t has less brandy in it, that is to say, adventitious spirit, n half an almude (16 quart bottles); that is to say, three llons to a pipe; but that is a very small percentage. . . . e heavy brandied rich wine cannot ever contain less than n 15 to 17 gallons to each pipe of 115 gallons."

"Mr. Barron, in his report of 1860, says—'The minimum dventitious spirit in port wine shipped to England is 2½ per nt.; but the heavy, full-bodied, so-called rich wines, cannot er contain less than from 15 to 17 gallons per pipe, of 115 llons.' Elsewhere Mr. Barron, observing that 'brandy enters into the composition of port wine in the proportion of one-fifth or one-sixth, and is therefore a principal raw material quired,' estimates the average spirituous strength of port nes reaching the British market at 26 per cent. Mr. Forster puts the average of adventitious spirit in full-bodied rts at 33½ per cent.; and the average estimate taken by the ondon Custom-house of the alcoholic strength of port wines ntered at this port is from 38 to 40 per cent., ranging from 40 o 50 per cent. in the highest class wines. My statement, herefore, so far from being exaggerated, is, in all probability, nder rather than over the mark. In any case it will be seen, if compared with the statements of Messrs. Forrester and Barron, to be strictly within the warrant of their authority, *e.g.*:—

"Brandy is then added in the proportion of from 3 to 16 gallons to every pipe of 116 gallons."—Mr. Lytton.

"There is no port wine, to the best of my belief, comes to this country that has less brandy in it—that is to say, adventitious spirit—than half an almude (16 quart bottles); that is to say, three gallons to a pipe. . . . The heavy brandied rich wine cannot ever contain less than from 15 to 17 gallons to each pipe of 115 gallons."—Mr. Forrester.

"No pure wine, no wine not thus specially adulterated for the English taste, was allowed by the government Committee of Tasters to pass the bar of the Douro for export to England before the year 1865."—Mr. Lytton.

"The minimum of adventitious spirit in port wine shipped to England is 2½ per cent.; but the heavy full-bodied so-called rich wines, cannot ever contain less than from 15 to 17 gallons per pipe of 115 gallons."—Mr. Barron.

"According to the prevailing law, which ordains that no port wine shall be allowed to be exported to Great Britain, unless it possesses qualities which certainly cannot be derived from the grape. . . . ."—Mr. Forrester.

"If the wine be unsophisticated, as a matter of course by law that wine is not permitted to come to this market."—Mr. Forrester.

"So much for the assertion that my short statement relative to the manufacture of port wine for the English market is 'totally unfounded.' I have said enough to show that no word of that statement was written without ample foundation."

But even with this array of testimony, Mr. Lytton has not done with his opponents. They made the attack, and they cannot expect much pity if the tables are turned upon them. He, therefore, goes on to add testimony to testimony—to pile Ossa on Pelion—to leave no loop-hole of escape from the conclusion that his "gross and iniquitous assertion" was not only a deliberately made and careful statement, but one which he is prepared to maintain against all-comers as the naked truth. As to brandying, so much has already incidentally transpired in the evidence respecting elder-berries, that we may pass on to his summing up, which we most heartily commend to those who fancied they could compel him to cry *peccavi* and retract. Having cited, besides other authorities, Mr. J. L. Denman's elegant and interesting volume entitled "the Wine and its Fruit," Mr. Lytton thus closes this part of the subject:—

"Now, as regards my statement relative to the brandying of port wines. The foregoing extracts will have already shown that, in addition to the evidence on which it was founded, this statement is fortified by the concurrent testimony of Mr. Denman, expressed in his most recent publications.

"But upon this subject there exists an authority which I conceive to be more weighty than the published declaration of any individual wine merchant, more impartial than the officially recorded opinion of any secretary of legation, more conclusive even than the collective evidence of witnesses examined by a parliamentary committee—and that authority is the alcoholic test.

"After perusing the newspaper articles to which I have had occasion to make frequent reference in the course of these remarks, it appeared to me that, as regards this particular question of fact, the ultimate criterion must be a chemical one. London, as is well-known, is the largest and most important testing port in the United Kingdom. Vast quantities of wine arriving daily from all the wine markets of Great Britain are here tested, and their alcoholic strength accurately ascertained. Through the kindness and courtesy of the authorities, I have been enabled, not only to visit the Testing Department of the London Custom-house, and there inspect the process of testing port wines, but also to enjoy the great advantage of frequent and frank personal communication on this subject, with the able and enlightened gentleman who superintends this impor-

tant department. I feel sure that I have only to mention the name of Mr. James L. Johnstone, in order to evoke from all who have the privilege of knowing him, that respect which is due to the testimony of a gentleman whose mind is eminently scientific, whose character is singularly independent, whose official position and high personal qualities place him above all prejudice and partiality, and whose practical experience of this subject cannot be disputed."

"Well, I have frankly submitted to the judgment of Mr. Johnstone my own estimate of the quantity of adventitious spirit admitted into the composition of port wine, and that gentleman not only assures me that my estimate is a moderate one, but he has also had the kindness to favour me with his own, derived from long observation of the results of the application of the alcoholic test to port wines, since that test was first adopted to the present day, as well as a thorough knowledge of all the details of the manufacture, and a comprehensive and impartial examination of all existing evidence upon the subject. I subjoin this estimate. 'I find,' says Mr. Johnstone (writing to me in reply to my questions upon this subject), 'that the strength of the spirit commonly used in Portugal varies from 45 per cent. O.P. to 50 per cent. O.P., and I assume it at its lowest, viz., 50 per cent. But the German spirit now so largely imported for fortifying purposes into wine-growing countries is often as high as 70 per cent., and rarely below 67 per cent. Elderberries are added, sometimes in a dry state, but the prepared 'geropiga' is often preferred, as it imparts other qualities besides colour.

"'The composition applies, in this instance, to the higher qualities of port wine.

"'To the half-fermented wine there is added, to check fermentation, first :—

			Gallons of proof spirit.
	25 gallons	brandy, at 45 deg., equal to	36·25
And say,	5 ,,	geropiga, or elderberries.	
Then,	6 ,,	more of brandy, equal to	8·70
Again,	2 ,,	more after racking, equal to	2·90
And,	1 ,,	more on shipment, equal to	1·40
	39 liquid gallons, equal to		49·30
	76 of wine.		
	Total.....115 gallons of port wine.		

"'That would be,' he continues, 'of proof spirit upon the pipe of 115 gallons, a little above the maximum of 42 degrees, at the higher duty of 2s. 6d.'"

Thus far, we have allowed Mr. Lytton to defend himself. How far he has succeeded in doing so, the extracts we have given will enable our readers to judge. It was not, however, to be anticipated that he would be allowed to have the last word, and accordingly his opponents have already replied to his last report. Animated with feelings of the utmost impartiality, we are glad to hear all they have to say on their side.

The *Wine Trade Review* of October the 15th devotes a good deal of space to a reply to the report from which we have quoted. The value of its criticisms will be seen from one or two paragraphs, to which we solicit attention. The article opens by saying that the *Daily News* has published several columns which "purport to be extracts from the latest issue of reports of her Majesty's Secretaries of Embassy and Legation," and goes on to exclaim—"Fortunate contemporary, to procure public documents long ere they are issued to the common herd! The said report is still in the hands of her Majesty's printers, and will be so, no doubt, for many weeks." Now, we beg to inform our *unfortunate* contemporary that the report in question may be procured at Harrisons, in Pall Mall, whence our own copy was obtained without the least difficulty.—Price 4½d.

But we pass by this singular lament, perhaps occasioned by the perverseness or the carelessness of a messenger, to the answer offered by the *Review* to the charge of adulteration by elderberries and brandy, for that, after all, is the point in dispute. We read, then, that "fine Upper Douro wines are so high coloured, that an addition of elderberries would be quite useless, even supposing that the darker the colour of the wine, the more highly it would be praised, as ports were about half a century ago." Now, here it seems to us is the admission that elderberries would serve the purpose of deepening the colour, and so make inferior resemble "fine Upper Douro wines," for these latter are declared even now to be so high-coloured, that they do not stand in need of the colouring ingredients. Moreover, it is clear that half a century ago the gentlemen who expected colour, were not altogether mistaken. This equivocal admission, after the evidence adduced as to the use of elderberries, and the notorious fact that they were not only grown in the country, but that quantities are exported to Oporto from England, in our mind only tends to confirm the conclusion at which we had arrived.

The *Wine Trade Review* is, however, too strongly committed to its own view, and attempts to prove too much, as our readers will probably agree with us, when they have considered the following paragraph, from its article of the 16th instant :—

"The quality of fine young Douro wine would be much impaired by the addition of elderberries. In fact, elderberries *are now only used* for the colouring of common wines, *but in no case is elderberry colouring matter now used to a greater extent than two per cent.* No one conversant with 'Douro management' will deny that a considerable quantity of spirit is added to increase the powers of preservation. That such has been considerably reduced of late years, is also well-known. The quantity of spirit varies, but no more is added to the grape juice than will suffice to preserve it for the number of years until it becomes fitted for the taste of the consumer."

Surely this remarkable confession will suffice. We are here told as explicitly as possible, that both elderberries and brandy are used. We can readily believe that such admixture would injure "a fine young Douro wine," but is it not natural to believe that when the practice is thus acknowledged in an article defending the trade from the imputation of adulteration, it is far more extensively employed in wines which have but a mere pretence to the name of "fine young Douro."

And so of the spirit—the practice of *fortifying* is here once more openly admitted. Let us then hear no more violent denunciations of Mr. Lytton, because he has reported the practices which his indignant opponents confess in the very articles they write, to show that he is *misinformed*. But as the wine trade as a whole has so warmly taken up the subject, and so strenuously insists on its innocence of all malpractices, and calls those who report to us the doings in Portugal libellers, ignorant, and other equally suggestive names, we feel called upon to let a ray of light fall upon practices nearer home. In a former article we hinted at this, by asking at its close whether the admixture of various substances with wine after its arrival in this country, could be appropriately described by any other word than adulteration.

The revelation we are now about to make will convince every one that such adulteration is a common practice. Of course, if people choose to drink a *liqueur* under the name of wine, there are sure to be many ready to provide for their taste. Such, choice port, fortified, may be. It seems pretty clear that there is very little, if any, real pure port to be obtained. But the use of anything during fermentation is a very different thing from the "doctoring" carried on in London. We ask attention to the following facts. *Ridley's Circular* has been, perhaps, the loudest of the wine trade organs in denouncing Mr. Lytton's report. Yet this highly virtuous representative of the trade seems fully conscious of the practices to which we allude, and to it we shall appeal for proof. In the September number of that periodical we find the following :—

"Considerable quantities of unsound bottled port are occasionally met with in the London market, which are disposed of at prices ranging from ten shillings upwards per dozen. In the course of last month an unusually large batch, consisting of 3000 dozens of a reputable shippers 1861's, bottled in 186[illegible] was cleared out by a bottler, in one line, at about 12s. per dozen. This wine was decidedly 'pricked,' and the purchasers, who are well-known jobbers, have put the lot under the care of a skilful manipulator, to be started and doctored in a manner calculated to neutralise the acidity, so as to render it available for a low priced advertising trade. The loss on the

sale may be fairly put down at some £2000, a most lamentable result for the bottlers, who could never have dreamed that a crack shipper's wine, of the vintage 1861, would have repaid them in so villanous a manner."

Furthermore, on reference to the October number of this monthly organ, issued on the 10th inst., we find that several hundred dozens of bottled port were brought forward at a sale, and actually sold at from 8s. to 13s. per dozen. Of 300 dozens of 1854 vintage, bottled in 1858, described as "originally fine wine, now unsound," the prices realised varied from 8s. to 11s. 6d. per dozen. Another parcel, bottled in 1865, was described as "unsound," but at the sale even the audacious purchasers, who have laid in such a fine stock for the coming season, offered "no bid." Will that, too, pass "under the care of a skilful manipulator, to be started and doctored" for the benefit of credulous customers?

Current Literature.

On the Health and Medical Writings of Lord Bacon, by John Dowson, M.D. London: H. K. Lewis. We may confess ourselves somewhat disappointed with this essay, since it seems to be only introductory to another from the same pen, announced as nearly ready, and which will treat of the "medical knowledge, opinions, and suggestions" of Bacon. We have read with interest the essay before us, and should have been glad to have had Dr. Dowson's next in the same cover, so as to be able to dispose of both at once. The materials being so nearly arranged, it was really a pity to give us the book in instalments. As, however, the author has exercised his right of doing so, we wait for the sequel. Anything about Bacon is sure to interest a large circle, and there is room enough for such essays as this of Dr. Dowson's.

The Power and Place of Art in the Treatment of Disease, by John Thorburn, M.D. This is the introductory address delivered at the opening of the present session at the Manchester Royal School of Medicine. Dr. Thorburn devoted his lecture to a warning against the prevalent scepticism in the power of art, pointing out that this is but the reaction from the extreme of credulity that formerly prevailed, and showing that it is the part of a well regulated mind not to oscilate between these extremes. We have read the lecture with a great deal of pleasure, and we cordially commend it as one which, even at this season, when we are deluged with introductory lectures, is well worth perusal. It would, perhaps, conduce to the object with which introductories are delivered, if they were, as a rule, all printed shortly after their delivery. Such a practice would perhaps tend to infuse into them a more precise aim than that with which some lecturers content themselves.

The 2nd part of the 2nd Volume of the *Transactions* of the *Epidemiological Society* of London for the Sessions 1864-5-6, has been received. The first part we have not seen. The part before us consists of some 250 pages of important matter brought before the Society in the period named. It is perhaps to be regretted that the transactions cannot appear at an earlier date after the proceedings, as they are apt by the delay to lose some of their interest. This volume contains an appreciative memoir of the late Dr. Babington, by Dr. Gavin Milroy, which will be sure to be one of the first articles to which the reader will turn. An Appendix gives the Report of the Council on cholera hospitals, adopted July 9th, 1866, and notes of the replies received to the circular of questions on this subject issued by the Society. The solid papers must speak for themselves.

The Edinburgh Medical Journal.—October, 1867.—There are five Originals in this number of our contemporary, viz:—1. T. J. Maclagan, M.D., on Enteric Fever in Dundee and Neighbourhood. 2. The conclusion of Dr. W. D. Moore's translation of Vald. Rasmussen, M.D., on Sclerodermia and its relation to Elephantiasis Arabum. 3. Dr. Matthews Duncan on Injury to Bones and Joints in Parturition. 4. Dr. Wm. Stephenson on the Action and Uses of Phosphate of Soda in small doses; and 5. Dr. G. Hamilton, of Falkirk, on Cases of Obstruction of the Bowels.

These papers are quite up to the average, and are followed by a considerable amount of information regarding medical education; by several reviews, and other miscellaneous matter.

Among the Medical News will be found obituaries of Velpeau and Rayer, whose loss to our profession has been so recent and so generally regretted.

Review.

ELEMENTS OF NATURAL PHILOSOPHY. By Charles Brooke, M.A., F.R.S. Based on the Treatise of the late Golding Bird, M.D. London: John Churchill and Sons. Sixth Edition.

Of the many beautiful and complete manuals issued by Messrs. Churchill, few have been greater favourites than that of natural philosophy. Dr. Golding Bird superintended three editions, and the one before us is the third of Mr. Brooke's. It will readily be understood that with the rapid advance that has been made in the physical sciences during the last few years, so many changes have been made in the work, as to render it just and fitting for Dr. Bird's name naturally to take the less important place now assigned to it on the title page. The book has, indeed, so altered with time, that it bears but slight resemblance to Dr. Bird's work when first published. Feature after feature has changed with the growth of years, until it is only here and there that the familiar form is recognized, just as in the lineaments of a man, those of the boy are not always to be detected. It is seven years since the fifth edition appeared, and the want of a good manual of natural philosophy began to be felt amongst English students, which this will go far to supply. We have looked into it, and find a number of new instruments figured or described, and throughout the work it may be seen that the best authorities have been referred to and utilized. On this point we may dwell a moment to point out what we think might be found useful in future editions. In place of the mere reference at the end of the different divisions, we think many students would be glad to have a very brief summary of the literature of each subject, or, at the least, the books referred to might, to a certain extent, be described, or their chief excellencies mentioned. We are aware that such an attempt might easily frustrate its own ends, by leading to too great diffuseness. Only the most condensed epitome could possibly be admissible in a manual of this sort, and the writer would constantly have to be on his guard against a tendency to enlarge. Moreover, it may fairly be asked by the author how he could make room for only a few additional paragraphs, when the work already exceeds 800 pages. We are no advocates for increase of bulk in manuals, though, perhaps, for such a purpose another sheet could be tolerated even in this thick volume. Then some of the duplicate cuts and tables might be omitted without inconvenience, in order to make a little more room. But apart even from the possibility of this, of which, perhaps the writer is, after all, the best judge, there is no need to raise an outcry against the size of a manual which is intended to serve the twofold purpose of a student's working book, and a small book of reference. Manuals are not novels, and are not resorted to as mere pastimes.

We have been induced to mention this notion, because the author modestly asks his readers to furnish him with hints or corrections, and because we think that all manual writers would do well to give a little more attention to the literature of the subject they undertake to teach. We fancy instead of being tedious, it would give a little relief to the other parts of these compilations.

In the introduction, Mr. Brooke puts forwards a theory which he thinks satisfactorily explains the phenomena of heat, light, and electricity. We do not intend to criticise this, but shall merely specify that he considers all these to be forms of wave motion, and he rejects the idea of the waves being propagated in a very light, but ponderable form of matter. He supposes interplanetary space to be occupied by this ether, which, however, he considers "not miscible with air." We cannot say that the evidence in support of the theory has altogether satisfied our minds, nor do we feel that the question is nearer solution than before.

In the chapter on Pneumatics, we are glad to see a notice of the aneroid barometer. In that on magnetism, a drawing of Browning's compass, and an account of the causes of error in the compasses of ships, which have led to so many sad disasters. Sir W. Thompson's marine galvanometer is also figured.

The recent improvements in telegraphy will be attractive to many, and those who turn to this part of the book will be

gratified to find a notice of the mode of determining the faults of cables.

The spectroscope, and spectral analysis, appear in the proper place, though, perhaps, medical students might expect to find this part a little fuller. They will, however, meet with them in other works they are obliged to consult. Before leaving the subject of light we may remark that chapter 22nd, extending from page 726 to 754, is devoted to the chemical action of light and photography, and will probably be attentively studied by a large number of readers.

We have now said enough respecting this manual, of which the former editions have so long been familiar to our readers. We have not felt called upon to point out minutely points on which we differ from the author, seeing that the work is chiefly intended for students. To mention its many excellencies at this stage of its career would be as superfluous as to add that the present edition exhibits all those features for which the publishers are responsible, which have made Messrs. Churchill's manuals so deservedly popular. Now that we hear so much of the necessity of teaching science in our schools, we may hope that this manual will obtain a larger circulation than ever. Nothing could be a more hopeful sign than to know that every young man of liberal education had mastered its contents.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 23, 1867.

THE HABITS OF MEDICAL STUDENTS.

AMONG the introductory lectures which we have published of late, may be found much that is interesting and useful to the Medical Students, for whom they were primarily designed. Two of the lecturers—Professor MILLER at King's College, and Mr. TEEVAN at the Westminster Hospital—have touched on the habits peculiar to the Medical Student; and on the advice given by these gentlemen we wish to make a few remarks.

Professor MILLER adverted to an increasing evil, and advised as regards it in the following terms:—

"With regard to Sundays, he advised them to make it a rule never to pursue their professional studies on that day. It was sometimes a necessary duty to visit the sick on Sundays, and they might be tempted to think there could be little harm if they should in addition take up some of their ordinary books. There was nothing which more surely brought its own reward than a fitting and reverent employment of the hours of the Lord's-day. But, independently of the command given to keep it holy, and of the blessing which always followed upon so doing, it would be found in the long run an absolute waste of time to follow their ordinary avocations on that day. The brain required the solace and repose afforded by the interval of rest from its accustomed pursuits, and it would resume its labours with renewed energy and success when it returned to its six days' work, refreshed and invigorated by the contemplation of higher and holier themes, and by the occupations of the Sabbath."

It is not our office, or our desire, to enter on theological questions, although we have opinions about them, like other people; but we cannot refrain from expressing our conviction that Professor MILLER is right in his main principle. Whether we look on the Sunday as the continuation of the Jewish Sabbath, or as the Christian "Lord's-day," or as one of many equally obligatory Church festivals, there is no doubt of the prudence and wisdom shown by the Student who lets work alone for one day in the week. On mere prudential grounds, then, we strongly commend to the Student, and to the Student's friends, this advice of Professor MILLER.

Mr. TEEVAN urges the same point thus:—

"Every man requires relaxation at times. You may perhaps, have heard of Branean. He was the most extensive proprietor of horses in the world. He wanted the answer to the following question—Given a certain number of miles for a horse to run each week, is it better for the horse to do the work in six days and rest on the seventh, or to do one-seventh part of the work each of the seven days? He found, by experiment, that those horses which did their work in six days, and then got a clear day's rest, were in much better condition than those horses which did one-seventh of their work each of the seven days."

But Mr. TEEVAN discusses the student's habits as unfavourable to health, urging that they need not be so of necessity. He then particularly adverts to the common habits—of the Student taking his meals alone, and of his indulging in excessive smoking and tea-drinking.

As to the evil of solitary meals, we quite agree with Mr. TEEVAN, and we further coincide with him in the dictum that Students will do well to reside and associate themselves with such of their fellows as have tastes and habits similar to their own.

Further, Mr. TEEVAN may be held to apologise to some extent for smoking; while he condemns late dinners, and strong tea-drinking.

As to smoking, we fear it is quite hopeless to persuade Students not to contract the habit at all. It is now so general among all ranks, that if King JAMES the First were to make a royal progress through England in our day, he would find under his nose at every step, those fumes, so forcibly likened by him to "the smoke of the Stygian pit which is bottomless."

Concerning late dinners, we do not agree with Mr TEEVAN. People *will* dine at the hour usual with their own class in life, no matter what may be urged about health. In point of fact, the dinner-hour question is now little more than one of words. A large class in England dine at two, and have supper

at nine. A large class in Ireland lunch at one, dine at seven, and do not sup at all. The difference is, after all, not so great as one may imagine, and even if there were any important difference, habit, in many things, notoriously reconciles men to what is customary. The late talented and eloquent Earl of CARLISLE, in his "Diary in Turkish Waters," noted, among the signs of his approach from the east to the west, his return to dinner, *when the day's work is over*. Hereon his Lordship observed, that a late dinner hour is one of the strongest and most marked signs of civilization and social culture.

To our mind the Medical Student's breakfast, without which he should never go to Hospital, is a much more important matter than his dinner. This meal should be such as will enable him to do a good part of his day's work on it; and many an attack of typhus in a Medical Student can be directly traced to his going to Hospital with an empty stomach.

As to Mr. TEEVAN'S remarks on drinking *strong* tea, we can only add that we fully agree with them; but as to his remarks on the effects of tea-drinking, (generally considered), on the mental powers, we cannot receive or recommend them without considerable qualification. Dr. HEADLAND, in his celebrated book "On the Action of Medicines," advocates the daily use of tea and coffee in strong terms, and expresses himself thus:—"They are, in fact, almost indispensable to the daily existence of civilized man, with whom a continual energy of mind is a necessary of life. Infusions of these substances, or of materials similar to them in medicinal nature are adopted as a daily beverage by all civilized nations."

Our experience of the genus Medical Student, and of others too, leads us to conclude that, in general, the man who dislikes his "tea," likes something stronger; and the man who likes gin, or brandy, or whisky, and water, is mostly indifferent or hostile to the charms of "the cup that cheers, but not inebriates."

THE ROYAL CHEST HOSPITAL.

THE large amount of space we have allotted to the disputants in the controversy respecting the resignation of Drs. Richardson, Leared, and Powell, is a sufficient proof of our desire that justice should be done. We regret the length of the several letters, but with so many questions involved we found it difficult to abbreviate them. Both parties have now issued what they call their final reply. We shall, therefore, insert the most important passages in the course of this article, and thus conclude a subject which has caused surprise and pain in many circles.

The resigning officers set out by stating that—"Dr. Dobell's last circular brings the matters in dispute between us to the mere question of truth, honour, and good faith. It is the question of his statements against our united statements."

They say, "the so-called minute of the Medical Council of July 3rd, 1866, quoted by Dr. Dobell, is not a *bonâ fide* minute, because it was not confirmed: it was not confirmed because two of us (viz., Dr. Richardson and Dr. Powell) who were present at the meeting, and constituted the majority, were unable to accept its accuracy. It represents what Dr. Dobell wished it to represent."

After some further explanation they discuss the paragraphs of the former letters as follows:—

"1. We have not confounded the acts of the Committee of Management, in relation to our use of certain remedial measures, with the interference of Dr. Dobell."

They suggest as a proper subject for investigation—the amount of money spent in the past two years on one item alone—viz., pancreatic emulsion?

"2. The placarding of the physicians' room of the hospital with an insurance bill was not a trivial act.

"3. The respirators placarded by Dr. Dobell in the hospital were, we re-affirm, altogether unknown of by us. We had never seen nor heard of them; but if we had it was improper to advertise them to our patients without our approval of them and consent."

To our mind these two items are closely allied, and that the practice is not strictly defensible has been acknowledged by Dr. Dobell withdrawing them as already stated in our columns.

"4. The assumption of Dr. Dobell at the dinner of 1863 was not an accident, but, as was obvious to each of us, an intention. Dr. Richardson, who was present all through the dinner, sat opposite to Dr. Dobell, and spoke to him and to the Secretary, so that both of them knew he was present, he was also called for by the Chairman, and rose at once to reply, but was openly interrupted by Dr. Dobell. It is on these facts that we complain, not on any personal feeling."

Our readers are capable of forming their own opinions on the good taste of Dr. Dobell's act, but it is a matter of little public concern to us whether the manner or the act, in such a paltry point of ceremony, was *comme il faut*.

"5. The offensive manner in which Dr. Dobell acted as the Secretary of the Medical Council, could not be better proved than it is by the tone of the minute on this point, which he has quoted to you."

"6. If it be false that Dr. Dobell did not add to the resolutions of the general meeting, he himself is the author of the falsehood. To us together he stated that he did it, and that he set the Secretary to get 'proxies' to support the proceeding."

We now come to a professional point of some moment—the qualifications of physicians. In this matter differences of opinion we know exist, and we think it is to be regretted that more uniformity should not prevail. In this case we find that at the general meeting this year, when the laws were revised, it was proposed as a new provision, that every candidate for the post of Physician or Assistant-Physician should be *at the time* a Member of the College. This Dr. Leared vigorously opposed, and Dr. Dobell defended. In the end it was agreed that the physician must be a Member of the College at his election, but that the Assistant-Physician should have a year of grace in which to take up Membership, if he were not a Member already. The resigning gentlemen asks—"Will it then be believed that Dr. Dobell did afterwards, as he admitted to us, add the words 'not practising Pharmacy or Midwifery' to the rule relating to the Assistant-Physician?" This may or may not be completely understood by us between the opposing statements, but if he added these words, we think it could only be with the idea they could not be objected to, as they form part of the law of almost all London charities.

"7. Our previous statement about the insult offered to Dr. Powell, in respect of the patient operated upon by him, is strictly true; and the suggestion that Mr. Adams should have been sent for is best met by the explanation that, as a matter of protection from further insult, Dr. Richardson went himself to fetch Mr. Adams, but, finding him out of town, secured Dr. Davies. With the fact before us, that on July 26th, 1867, this point in dispute was discussed by us with Dr. Dobell, and that his assertions have actually led to a correspondence on the question with Mr. Adams, the entire denial of his interference in the case is, to our minds, incomprehensible. To deny that the patient entered the Hospital would not show grosser effrontery."

On such a point as this, we think that Mr. Adams would be an excellent arbitrator if he would undertake such an office.

"8. In his first letter, Dr. Dobell affirmed that we had resigned without making our objections to his proceedings known to him. In his last letter, by admitting 'the hot discussion' that occurred twenty-eight days before we resigned, he admits that his first statement was an untruth."

"9. The fact that Dr. Dobell should send out to the poor patients *one* such diet bill as we have shown to you, is a sufficient cause of objection for us; and if another handbill, recommending bread and water, had been issued by the thousand, the objection would be the same."

The greatest objection to the diet bill was the insertion of the physician's name. The dietary suggested in that quoted was undoubtedly not adapted for the recipients of a public charity. But, on this ground, we do not suppose much would have been said. We have heard physicians recommend port wine and good diet to their hospital patients, although we have often felt a desire to ask them about "ways and means." Still, as a general rule, if one medical man likes to be impracticable, we know no way of preventing it.

"10. The proposition of a 'tribunal', as it was proposed to Dr. Richardson by Dr. Dobell, we treat as mere badinage. Had Dr. Richardson consented, as was suggested, to a 'tribunal,' made out of Dr. Dobell's friends of the Council, and one physician, with Drs. Leared and Powell pointedly excluded, he would not only have shown absurd weakness, but he would have been drawn into the snare of admitting by the act that two of his own colleagues were unworthy of credit and confidence; he therefore naturally and indignantly rejected the proposal."

Thus they, on their parts, close the controversy, adding that "to reason with an opponent who meets specific charges by loose or lame excuses—who is incapable of expressing any regret for having annoyed us until we were forced to resign—who parries the truth by suggesting the false—who convicts himself of untruth—and who mocks by offering terms of conciliation which cannot but be rejected—to reason we say with such an opponent is mere harass without hope."

In addition, however, to these statements, there is a postscript by Drs. Richardson and Leared, in reference to Dr. Powell, which, after what has been written, we think it just to that gentleman to subjoin as follows:—

"*(a)* Dr. Powell was first introduced to the Hospital, as well as to Dr. Richardson and to Dr. Leared, by Dr. Dobell.

"*(b)* Dr. Powell was thus introduced by Dr. Dobell, on the ground that he would prove a most ready and willing representative of any of the physicians during their absence from duty, a fact which the experience of his conduct for seven years has most fully confirmed.

"*(c)* Such has been the confidence reposed in Dr. Powell by the authorites and staff of the Hospital, that during several months while the Hospital was being rebuilt, Dr. Powell was asked officially by the secretary to see *all the physicians' patients at his own residence*, a labour which he cheerfully carried out, and for which he received a special vote of thanks from the management."

Such is the final statement on one side. We have not printed it *verbatim*, but have given we believe everything important. It reiterates in the plainest terms all the former charges, and by anticipation refuses to say more or to modify any charge. What is the reply? A week after this circular we received the final letter from Dr. Dobell, which, instead of prolonging the discussion, simply in the briefest terms retorts the charge of untruthfulness. He writes to the Governors of the Hospital:—

"The third and last circular addressed to you by Drs. Richardson, Leared, and Powell, consists of a repetition of statements which have already been shown by the Council and myself (supported by minutes and other documents in the possession of the Institution) to be either untrue, or perversions and evasions of the truth.

"It is not my intention, therefore, to occupy your valuable time by entering into any further replies."

Here, then, after so much wordy war we seem no nearer than ever to any solution. Those interested in the matter will undoubtedly believe the side in which they have most faith, and that is all. We look in vain for any good result to the profession, unless we accept as such the fact, that since the dispute arose a number of medical men have seen fit to request the chemists to cease advertising their names in connection with remedies. The practice had, in fact, become a nuisance, and we hope may not revive.

As to many other questions of interest, it would be well could they be fully discussed without the personal feeling that has been imported into this affair. Yet, questions of ethics in the abstract are apt to be less noticed than when they are thus brought into prominence.

Notes on Current Topics.

PRINCE ARTHUR.

PRINCE ARTHUR has had an attack of modified small-pox. He was staying at the Ranger's House, Greenwich Park, and was attended by Dr. Carr, who lives near. Dr. Sieveking and Dr. Munk were called in consultation. We are glad to report that he is convalescent, the attack having been a mild one. No pitting is likely to remain. Should not this attack of a member of the royal family by small-pox fix the attention of the public on the late increase of the disease, and cause more attention to be paid to vaccination?

THE promotion of Sir W. Fergusson and Mr. Paget to the offices of Serjeant-Surgeon and Serjeant-Surgeon Extraordinary to the Queen, place at Her Majesty's disposal two vacancies in the office of Surgeon Extraordinary. The existing President of the Royal College of Surgeons is mentioned as likely to receive the honour, and, with him, the name of Mr. Prescott Hewett is mentioned.

THE ENTRIES AT THE LONDON SCHOOLS.

THE entries of students at the various London Schools has this year reached an advance of 82 over that of last October, presenting a total of 1125 against 1043 in 1866. This increase, however, appears to be due to the new regulations which have the effect of causing fourth year students to register as in their third year of study. The new names are, in fact, less than they were last year, and, therefore, the influx to the Profession rather on the decrease. 355 new names were registered, and of these St. Bartholomew's and Guy's absorb nearly one-half, while St. Thomas's, formerly a powerful claimant, is, by its present transition state, reduced to 16.

THE Council of the College of Surgeons of England, have elected, on the 17th inst., Mr. Le Gros Clark, Surgeon to St. Thomas's Hospital, as Professor of Surgery to the College, in the room of Mr. Hancock resigned.

CAUSE AND EFFECT.

ON the same principle, that if Cleopatra had been born with a *nez retroussè* instead of an aquiline, the Roman Empire would not have fallen, the *Salut Publique* argues that but for a cigar the French exchequer would be still under the ministration of M. Fould. About six years ago, M. Bean read a communication at the Academy of Sciences, on the Effect of the Abuse of Tobacco on Angina pectoris, and on this ground the *Salut Publique* lays the blame of M. Fould's death on a single cigar smoked between morning and evening—a solution quite as ingenious as the late Coroner's verdict of "died of the Underground Railway."

THE CALABAR ORDEAL.

A TRAGIC story comes to us from Old Calabar. Seven women were compelled to submit to the ordeal of taking the calabar bean, according to the barbarous practice of proving their innocence. Three, if not four, of the victims had died at the time the witnesses left, and they entertained no hope that any would survive.

SEA-SIDE DRAINAGE.

NEXT in importance to the drainage of our cities and large manufacturing towns, are those generally styled "health resorts." To these the public fly from June to September, and, when their days are passed, and autumn's searching winds forbid indulgence in sea-bathing, the upper ten thousand thither wend their way. Here, too, are the sanatoria for one or two classes of our patients, here the superstructure of nature's hospital stands. Doubts, however, have always existed as to which were the healthiest and best drained, and as the latter is the pivot upon which successive questions turn, and of vital importance to the medical man, we propose devoting a small portion of our columns to the ventilation of this subject. First on our list are the towns of Hastings and St. Leonard's. It is to these a large proportion of our consumptive patients are sent—to the former more especially, owing to the advantages it possesses of shelter from the north and east winds, through the lofty hills by which it is nearly surrounded, the genial atmosphere generally prevailing in these towns, and the salubrity of the adjacent high and lovely country, have made them what they have long been, and will be, still more deservedly popular. Sometime since the question of drainage was raised, the advocates of sanitary reform contending that the air was contaminated by effluvia, which seriously affected the public health; and, finally, that if something were not immediately done, it would resolve itself into an arrangement with "the undertaker." There can be no question that some of these supposed evils were more imaginary than real. However, the local board immediately set to work to stem the tide of public opinion, and, after consulting with Mr. J. W. Bazalgette, the eminent metropolitan engineer, plans were drawn up and submitted by that gentleman, which eventually led to that complete system of drainage, just finished in one town, and nearly so in the other. The drainage at Hastings is scarcely finished, the area to be traversed being much greater, and the difficulties at the outlet more formidable, than the sister town. We therefore propose briefly to describe those works which are now complete. Hitherto, like most seaside places, St. Leonard's got rid of its sewage by discharging it into the sea, from iron pipes fixed along the beach. Hence the refuse and stench therefrom was thrown back upon the beach by the flowing tide, there to lie and make "pollution worse polluted," till some friendly high-tide, like a scavenger, swept it away. Now, these long, dirty tubes have been removed. An intercepting sewer has been constructed, commencing at the St. Leonard's archway (the boundary between Hastings and St. Leonard's proper), which carries away all the sewage until it reaches the western extremity of the town. It is then received into a reservoir, and is discharged twice in the twenty-four hours, and by the strong current of the ebb-tide is carried miles away to sea in the direction of Beachy-head. Nothing can be more simple than this plan, and yet, so far as it has been proved, nothing more admirable could have been devised. It has answered the most sanguine expectations, and amongst the many advantages possessed by this town, none will have greater weight *with*, or recommend it more entirely *to* the profession, than this last and greatest of all sanitary improvements, an effective drainage.

"DAVIS'S PAIN KILLER."

THE death of a man was under investigation last week, in whom inflammation of the stomach was a prominent post-mortem appearance. By the evidence of Dr. Letheby, it appeared that a quantity of camphor, capsicum, and spirit, the ingredients of "Davis's Pain Killer," which deceased was in the habit of taking, were found in the stomach. The Jury, having heard Dr. Letheby's evidence, that these constitutents were not sufficient to cause death, found a verdict of "death from natural causes."

A MARE'S NEST.

ONE of our contemporaries has been indulging, perhaps for want of a better topic, in a little virtuous indignation against the University of Edinburgh for inserting the private addresses of its professors in its advertisements. Before having reproved the secretary for "a new development of the puff oblique," or expressed astonishment at this "decided novelty," the writer of the paragraph would have done well to enquire the date at which the practice originated. He would then have learned that it was older than the journal in which he was about to announce the discovery (?) he had made in his perusal of the interesting literature of advertisements. Professor Syme has explained the custom that has long prevailed, and mentions that, to it he is indebted for some interesting autographs of "Dr. Hope, Dr. Home, Dr. Cullen, and Dr. Whytt, who were all great men in their day, and no more than their successors regarded teaching as merely a step to practice." This reply is dignified and just, and we trust the circumstance will be a useful lesson to writers who seem to think that throwing stones is a safe amusement for the leisure hours of professional *gentlemen*. There are glass-houses enough in London for those thus disposed, and to Edinburgh is a long throw, and, as in this case, likely to miss the mark.

INHUMAN CRUELTIES.

THE details of another horrible case of cruelty to a servant girl, have been made public in a recent prosecution at Derby. The victim on this occasion was an unfortunate child of fourteen, whom the perpetrator, an insurance agent, named Shaw, had taken from the Workhouse as a servant. It appeared from the evidence that this man had, as a punishment for an alleged falsehood, taken the girl into a backroom, ordered her to strip to the waist, and lie down on her face on the floor. He then commenced to bastinado the soles of her feet with a wooden spoon, previously having tied her hands and feet together, and gagged her mouth to prevent her cries being heard. He next proceeded to flog her in the most inhuman manner with a horsewhip, inflicting frightful sores and contusions. Not satisfied with this, he ordered her to strip off the whole of her clothing, and recommenced his unmerciful treatment, finishing by rubbing her with turpentine and salt and water. The poor girl's wounds were exhibited in court, and excited the greatest horror.

We hesitate to transfer these horrible details to our

columns, and we do so only as a commentary on the punishment which was awarded for these diabolical acts. Six months' imprisonment is the value which the law or the Derby magistrates, whichever be responsible, sets upon the life, the health, and the agony of a workhouse orphan servant. Truly such atrocities and such a punishment suggest the belief that the ministrations of Judge Lynch are required elsewhere as well as in America.

IMPARTIAL BIOGRAPHY.

SOME remarks made in an article inserted in our last week's issue have called forth the following astounding assertion:—

"A Medical contemporary takes somewhat tardy exception to a biographical memoir which appeared several weeks since in this journal. That memoir, just, candid, and indulgent, has, however, not only been stamped with general approval, but called forth the special and personal thanks of approval of those nearest to the man whose services it honourably commemorated without blind or indiscriminate adulation."

"Tardy," perhaps! We suffered three numbers of our contemporary to appear, in the hope of seeing a protest from some other quarter. If "those nearest" to the deceased have expressed "*personal thanks of approval*," whatever that may mean, for charges of having acted "in spite of reason or good feeling," and of having persisted in wrong "after his eyes were opened"—then heaven save us from such friends!

YELLOW FEVER.

THIS disease proved fatal on board the *Tasmanian*, in her voyage from St. Thomas to Southampton. The vessel was ordered into quarantine off the Motherbank. From Jamaica we hear that the disease is rapidly decreasing. Several medical men have perished in the epidemic. At New Orleans, this year, the fatality has been very great. One correspondent mentions that 1300 deaths had occurred, and speaks of a rate of 70 or more per day. If our finest vessels are to be subjected to quarantine, it would be well for some definite rules to be established. We have so many times urged the necessity of further inquiry as to the utility of quarantine in protecting us from the invasion of any disease, that we need only allude to yellow fever as particularly a case in point. Can any one give us a satisfactory reason for sending passenger steamers into infected tropical ports, and then imposing quarantine at this end of the voyage?

OUT-DOOR NURSING IN DUBLIN.

THE economic section of the South Dublin Union Guardians, at their meeting last week, refused, "on principle," to sanction the payment of twelve shillings for nursing of a patient in virulent cholera, at her own house. They did not like to establish a precedent, and, therefore, "on principle," they affirmed their opinion that a cholera patient should either go to hospital or die uncared for at home. Dr. Henry Gray Croly, who was in attendance on the case, feeling that in the state of the patient, motion was death, obtained a nurse, through whose attention the patient's life was saved. Highly as we admire the lofty principle of these guardians, we venture to suggest that when a patient is dying, and in a case where removal is almost necessarily coincident with death, the exercise of their heroics is out of place, and the ratepayer would prefer a modicum of good sense and humanity, to any quantity of "principle" which they may be able to import into the matter.

TRANSACTIONS OF THE PHARMACEUTICAL SOCIETY.

[*Abridged from the Pharmaceutical Journal.*]

AT a meeting of the council, September 4th, 1867.—Present—Messrs. Abraham, Bootle, Carteighe, Evans, Hills, Ince, Morson, Sandford, and Waugh.

The following were elected members, Hugh Griffin Hughes, Hokitika, New Zealand; Walter Rew, Sandgate. Mr. Adam Payton Hurlstone was elected Curator of the Museums.

BRITISH PHARMACEUTICAL CONFERENCE.

Meeting at Dundee, 1867.

On Tuesday, September 3rd, at 10 A.M., the sittings of the British Pharmaceutical Conference were commenced in Dundee,—the place of meeting being the Ward Chapel Rooms, under the presidency of R. Bentley, Esq., F.L.S., M.R.C.S., Professor of Botany in King's College, London, and Professor of Materia Medica and Botany to the Pharmaceutical Society.

Dr. ATTFIELD read the report of the Executive Committee which stated the numerical strength of the Conference had increased satisfactorily. The number of members is now 478.

"The past year has witnessed the removal of some great obstacles in the way of pharmaceutical legislation, but it is evident that a powerful effort must be put forth finally to achieve that object. The Executive Committee concur fully in the resolution passed by the Conference last year, viz., 'That the practice of pharmacy requires to be limited to fully qualified persons, and that it is necessary, in order to attain this result, that an appropriate examination should be enforced by legislative authority.'"

The PRESIDENT stated that he had the pleasure to lay before the Conference two communications containing invitations for the meeting of 1868. The first was from Norwich, and the second communication from Mr. Davies, Hon. Sec. of the Liverpool Chemists' Association, enclosing the following resolution of that society, viz., "That the Council of the Liverpool Chemists' Association will welcome the British Pharmaceutical Conference, if it should accompany the British Association in its anticipated visit to Liverpool, and will use every effort to render its visit successful."

The PRESIDENT stated that, in accordance with the usual custom, the Conference would await the decision of the British Association as to its place of meeting next year, and that, consequently, the question would stand for an adjourned meeting to be held next week.

The PRESIDENT then proceeded to deliver an address on the study of botany in connection with Pharmacy.

The reading of the papers then commenced.

ON THE ADULTERATION OF WHITE PRECIPITATE.—BY J. B. BARNES, F.C.S.

Seventeen years ago, whilst on the look-out to apply my newly acquired knowledge of chemical analysis, I tested some white precipitate, in the stock of a highly respectable pharmaceutist, and was astonished to find that it contained 50 per cent of chalk; it had been supplied by a wholesale house in London, doing a large trade, and at the price of a pure article. I made the matter known through the medium of the *Pharmaceutical Journal*.

Having applied to some of the members of the Conference residing in the principal towns to procure from the their respective neighbourhoods samples of this drug, through their kind assistance I obtained fifty-eight samples; three other specimens were forwarded to me by Dr. Attfield, obtained, I believe, from one of our local secretaries.

Small portions of each of these parcels were separately exposed to the action of a strong heat. Of this large number (sixty-one) *four* only exhibited evidence of an adulterant; one proved to be carbonate of lead only; another, a mixture of carbonate of lead and white precipitate; and the remaining two, mixtures of chalk and white precipitate.

I venture to think that the result is very creditable to the members of our profession, because in the majority of cases the specimens were obtained in neighbourhoods where it might have been supposed that adulterated samples would be met with; indeed, my Bristol contributor states that he obtained his specimens from a locality where he was sure to be able to find adulterated drugs. It also shows pretty clearly that the wholesale druggists do not, in these days, supply their customers with adulterated white precipitate.

Mr. HANBURY alluded to the different physical states in which this drug was met with. When in the state of lumps,

these gave a characteristic ringing sound when shaken in a large bottle. The advantage of having it as a powder, ready for use in ointments, had induced one manufacturer to send it out finely levigated, and there could be no doubt of the advantages offered by this plan.

A CASE OF EXCISE INTERFERENCE IN THE SALE OF QUININE WINE.—BY MR. CHARLES KERR, DUNDEE.

The subject I wish to bring under your notice is no new one, although I am not aware if it has ever been brought before the meetings of the Conference. It is, namely, the interference of the excise with the sale of quinine wine.

Some two years ago there was an article on the matter in the *Pharmaceutical Journal*, noticing the case of Mr. Waters, British wine-maker, whose quinine wine the excise would not allow to be sold, except by parties having a British wine licence. Mr. Water's preparation was sold principally by grocers and Italian warehousemen, who are generally licensed for such articles as British wines; but some chemists were customers to Mr. Waters for his quinine wine, and it was these the excise would not allow to sell it without a licence. A correspondence took place between Mr. Waters and the Board of Excise on the subject, and after several letters the Board came to the conclusion that a patent medicine licence and stamp were required for the sale of Waters' quinine wine. I am not aware if these instructions were complied with, nor if the article is still in the market; most of those present will remember the case of Waters, so I need not occupy time in further referring to it.

I wish to bring before the meeting the matter in a new light, as it occurred to myself some time ago. For three years I have made considerable quantities of quinine wine, composed of orange wine and quinine, one grain to the ounce,—in fact, the very formula now given in the new edition of the Pharmacopœia. I had not long commenced making it when I received a visit from an excise officer, who told me he thought I had to pay a licence for selling quinine wine. I told him he must be wrong; he alluded to the case of Waters, but I explained that there was no analogy in the two cases: I was a chemist and could make and sell quinine wine as well as any other medicated wine; I did not sell it as a beverage, but as a medicine, and it was labelled "Tonic Medicine." We had a long talk on the matter, and to satisfy himself, the officer said he would report the case, and purchase a bottle of my quinine wine and send it for examination to the London Board, which he accordingly did; and I was somewhat startled, a short time afterwards, by receiving a summons to appear before a local justice of the peace to answer the charge of being a retailer of sweets without a licence. Penalty £50, and to appear in fourteen days.

I was quite taken aback at receiving this; and not being desirous of seeing my name flourishing in the newspapers in a case before a justice of the peace for defrauding her Majesty's revenue, the nature of which case the general public could not well understand, also knowing that excise laws were peculiar and not to be fought against with impunity, I thought it best to lay the case before the London Board.

To my letter I received the answer that the information pending against me would be withdrawn on my paying the expenses, and taking out a sweets licence.

I took out the licence, paid expenses, and so ended my trouble with the excise; since then I have paid the yearly licence twice. I have only introduced the matter for discussion, so I will not occupy your time by giving any lengthy remarks of my own; but it must be evident to all that chemists stand in an equivocal position to the excise, when they can be made to pay licence for making medicated wine with British wine, and not made to do so for making them with foreign wines. Why not make us pay £10, 10s. for making antimonial or ipecacuan wine? There is something radically wrong, when we are obliged to pay a licence for making a preparation authorized by the new British Pharmacopœia; and I am curious to know whether the Honourable Board are aware of the new turn matters have taken, and what their opinion now is? I would therefore propose that the Excise Board be communicated with on the subject, and with that proposal I now leave the matter in the hands of the meeting.

Mr. MACKAY alluded to the supposed infringement of the Patent Medicine Act by the use of the word "tonic," without a stamp being added. If the employment of this word created the liability, then many of their medicines must, by analogy, be infringements of the Act; for instance, Gregory's Powder, to which he supposed they all added the descriptive word "Stomachic." Mr. Mackay gave, as an illustration of the severe course adopted by the excise towards persons who had unwittingly infringed their laws, the following case from his personal experience:—A flavouring liquid had been repeatedly sent to London, and he was assured in Edinburgh that such a course was perfectly regular. On one occasion, a seizure was made, and a fine of £200 imposed, which, after extreme annoyance and heavy cost, was reduced to £10.

Mr. BAILDON thought that the whole question of the patent medicine stamp should be looked into. It was based upon a deception, since the public believed that so-called "patent medicines" were really what the literal construction of the term implied. Of course, those present knew that the patents for Anderson's pills, and a few other proprietary medicines which alone could properly claim the term "patent," had long since expired.

Mr. EBERT explained the relation of pharmaceutists to the excise laws in the United States. Many pharmaceutists take out a liquor licence, and are thus enabled to supply to invalids and families wines and spirits, which command their confidence in preference to those sold at the spirit stores. Some of the leading houses will not take this licence. Since the war, all pay a distinct tax for exercising their profession. The definition of liability to the patent medicine stamp is similar to that obtaining in England.

ON BURGUNDY PITCH.—BY DANIEL HANBURY.

Although genuine Burgundy Pitch (usually, it must be admitted, in a very impure state) has been always obtainable in the London market, it is rarely found genuine in the shops—an artificial compound being very generally supplied in place of it.

This artificial Burgundy Pitch is of most variable appearance. In examining eight samples of it, I find that in my notes I have described it as dull tawny, bright tawny yellow, bright yellow, brilliant orange yellow, or bright orange brown. Some samples have a dull wax-like fracture, others a more or less shinning or conchoidal fracture. Some exhibit when broken numerous cells containing air or water; others are more compact. All are more or less opaque, but become transparent on the surface in the course of time by the loss of water. All the samples have a weak terebinthinous odour, not one possessing the fragrance of true Burgundy Pitch. All are free from bits of stick and such like impurities which are frequently found in the genuine drug.

I am not in the secret of the manufacture of this artificial Burgundy Pitch, for which indeed each maker must have his own formula. According to common report, however, it is formed by melting together common resin with palm oil or some other fat, water being stirred into the mixture to produce an opaque appearance. In examining the characters of genuine and spurious Burgundy Pitch, I have noted the following differences:—

True Burgundy Pitch.	*Artificial Burgundy Pitch.*
Colour dull yellowish brown; fracture shining, conchoidal; translucent; some samples contain much water and are opaque and of a dull grey colour, and require straining to free them from impurities.	Colour usually more brilliant than that of the true Burgundy Pitch.
Odour peculiarly aromatic.	Odour weak and hardly aromatic.
Not wholly soluble in alcohol of ·838, but leaves a small amount of fine white flocculent matter.	Still less completely soluble in alcohol of ·838.
Placed in contact with double its weight of glacial acetic acid in a vial, is dissolved with the exception of a small amount of flocculent matter.	Similarly treated, forms a turbid mixture which soon separated into two layers, a thick oily liquid above and a bright solution below.

The foregoing characters apply to most of the artificial Burgundy Pitch which I have examined, and may be useful, so far as they go, for distinguishing the genuine from the spurious. The odour of true Burgundy Pitch is in itself an excellent criterion which cannot be conveyed by description. Solubility in glacial acetic acid serves to reveal the presence of fatty matter which is a common, perhaps an essential, ingredient in the artificial Burgundy Pitch made in this country.

From what has preceded may be deduced the following:—

Conclusions.

1. True Burgundy Pitch is the melted and strained resin of *Abies excelsa* DC.
2. An artificial compound is usually sold in lieu of it both in this country and on the Continent.
3. True Burgundy Pitch is produced on a large scale in Finland, also of fine quality in Baden and in Austria.
4. True Burgundy Pitch differs palpably from the artificial, and may be easily distinguished from it.

ANALYSIS OF ORDINARY COMMERCIAL SPECIMENS OF JALAP, SHOWING THEIR RELATIVE VALUE IN PROPORTION OF RESIN OF JALAP COMPARED WITH MARKET PRICE.—BY MR. ALFRED SOUTHALL, BIRMINGHAM.

The importance of maintaining a uniform medicinal value in the drugs ordered by the Pharmacopœia cannot be over-estimated. The British Pharmacopœia has, in the instances of opium, cinchona bark, and scammony, given a standard value for each of these remedies, but I think it might with great advantage have included some other drugs, and, amongst the rest, the subject of this analysis.

In order to ascertain the medicinal value of the supplies of jalap, as found in the shop of pharmaceutists, I procured five specimens of powdered jalap at different establishments, and found the result, in percentage of resin, as follows :—

No. 1, 13 per cent. of resin.
„ 2, 15 „ „
„ 3, 9½ „ „
„ 4, 16½ „ „
„ 5, 17 „ „

The commercial value of jalap imported from Tampico is much inferior to the kind imported by way of Vera Cruz, but an average of seven samples of each kind here analysed, show that the Tampico is richer in resin than the Vera Cruz ; the average in the one case being about 22 per cent., and in the other 17¼ per cent.

I have made an experiment with the purgative effects of the two varieties, and find them much the same. The resin from Tampico jalap is somewhat darker than that from the Vera Cruz variety, and has a distinctive peculiarity of smell, but I have not discovered any difference in chemical character.

Mr. HANBURY referred to a case in which the roots of *Aconitum ferox* were mistaken in India for jalap, and a quantity powdered, the error not being detected until several persons had been poisoned. He had the curiosity to procure specimens of this particular parcel, and, although the appearance as a whole was sufficiently distinct from jalap, he could but admit that it included many roots so similar in appearance to Tampico jalap as to be almost undistinguishable. The difficulty of getting good jalap root had become very great, and the question arose whether its cultivation would not be the remedy for this state of things. He (Mr. Hanbury) had procured plants, and succeeded in growing them even in England ; but it was in India that success must be looked for if we were to supersede Mexican supplies of this drug. The plants which he had sent to the Neilgherries were flourishing.

NOTES ON EFFERVESCING CITRATE OF MAGNESIA.—BY MR. G. DYMOND, BIRMINGHAM.

Whilst this Conference is engaged in the laudable endeavour to raise the status of English pharmacy, and whilst the talk of rival societies is the protection and encouragement of commercial and scientific pharmacy, it is a cause of some discouragement that the first principles of sound morality and success are frequently set at defiance by pharmaceutists. The pleasing deception which is daily practised in the sale of the various popular granulated effervescing compounds is the instance which I wish here to adduce, because these preparations, being almost without exception known by names which do not express their composition and real character, have met with a success which must raise the indignation of every lover of honest pharmacy. The so-called "Granulated Effervescing Citrate of Magnesia," whilst it is the most popular of these compounds, is at the same time the most fallacious, because it usually contains no citrate of magnesia at all ; and I venture to think that the consciences of many pharmaceutists must, with my own, have long protested against such a misnomer.

The writer was pleased to hear that an analysis of several samples of granulated effervescing preparations had been promised to this meeting, and he trusts that though not presented at this Conference, it will be ready hereafter. The task of making such an analysis is, however, in part spared by the candid acknowledgment of some large manufacturers of so-called "Effervescing Citrate of Magnesia," that their productions contain no such constituent whatever.

The advantages of a true citrate of magnesia have, I think, not been sufficiently appreciated, but it is clear that the exchange from a composite salt, prepared from chance formulas, of different therapeutic values, to one which is a definite chemical production, and which has therefore a definite therapeutic value, has many advantages to recommend it.

The specimen of saccharated effervescing citrate of magnesia which is placed upon the table is made by the mechanical combination, in equivalent quantities, of carbonate of magnesia and citric acid, together with the addition of fifteen per cent. of sugar. It fulfils the conditions required in this preparation of brisk effervescence during the discharge of the carbonic acid, and a nearly bright subsequent solution ; and it is presented in the belief that this attempt will be appreciated by this Conference, in vindication of those principles of morality as applied to the ethics of pharmacy which it should be our aim to maintain.

Several members took part in the discussion of the question of pharmaceutical ethics raised by this paper, but, whilst recognizing the high motives influencing the writer, the general feeling did not appear to be that the practice of using the conventional name of "Granular Citrate of Magnesia" was an abuse demanding protest.

Mr. BRADY spoke of the origin of the name objected to by Mr. Dymond, and the gradual omission of the salt of magnesia, which at first seems to have been used by the maker of the preparations. There were so many other more salient points for attack, from seidlitz powders downwards, that he was rather surprised at the selection of this comparatively new addition to the Materia Medica.

Mr. SCHACHT thought that it would be found that the British Pharmacopœia contained several instances of the application of names not strictly accurate.

Mr. HANBURY did not hesitate to express the strong objection he felt to the employment of definite chemical names for substances, the composition of which they were intended to conceal. It appeared to him that medical men were chiefly responsible for this sort of thing, since strange compounds, such as granular effervescent bromides or iodides were introduced by the makers to their notice, and by prescribing them they created the demand for substances of the real nature of which they could know very little. At the Exhibition of 1862, the jury in the section of pharmacy condemned the use of such preparations.

[It is a startling admission, that general feeling of the British Pharmaceutists does not recognize the public sale for "Effervescing Citrate of Magnesia" of an article not containing a particle of such constituent, as an abuse demanding protest.—ED. M. P. & C.]

I. REPORT ON THE ADVANTAGES OR DISADVANTAGES OF THE EMPLOYMENT IN PHARMACY OF NITRIC ACID OF SPECIFIC GRAVITY 1·5.

II. REPORT ON THE NITRO-HYDROCHLORIC ACID OF THE BRITISH PHARMACOPŒIA, AND THE CHANGES IN IT ON KEEPING.

BY W. E. HEATHFIELD, F.R.G.S., F.C.S.

The inquiry proposed in reference to the first of these two subjects having been rendered supererogatory, in consequence of the change prescribed in the British Pharmacopœia, which has appeared since the announcement of these questions, I pass it over with the comment that it has been difficult to procure nitric acid uniformly of the gravity of 1·5 ; that it is very rarely free from a considerable quantity of nitrous acid, as evidenced when the acid is poured into water with a view to dilution ; that it is uncertain in strength, from its tendency to decompose, and that it is inconvenient to pack, dangerous in transit, and unmanageable in use. The acid of the British Pharmacopœia of 1867 is doubtless an excellent substitute, containing, as it does, 70 per cent. of real acid. It undergoes no change on keeping.

Referring to the second inquiry—the nitro-hydrochloric acid, and the changes in it on keeping—it is to be observed, that since the institution of these experiments, the British Pharmacopœia of 1867 has been presented, with an alteration in the formula and directions for the production of this acid, and as it differs materially from that adopted in the previous publication,—that of 1864,—I subjoin the two formulæ for comparison.

Acidum Nitro-hydrochloricum Dilutum. B.P. 1864.

Nitric acid, sp. g. 1·5	2 fluid ounces.
Hydrochloric acid, sp. g. 1·170 . .	4 fluid ounces.
Distilled water	26 fluid ounces.

Add to the water, first the nitric acid, and then the hydrochloric acid. Mix, and preserve in a stoppered bottle. Tests,—specific gravity 1·074 ; 6 fluid drachms require for neutralization 93·88 measures of the volumetric solution of soda.

Acidum Nitro-hydrochloricum Dilutum. B.P. 1867.

Nitric acid, 1·42	3 fluid ounces.
Hydrochloric acid, 1·16	4 fluid ounces.
Distilled water	25 fluid ounces.

Mix the acids, and allow them to remain for twenty-four hours in a bottle, the mouth of which is partially closed, then add the water in successive portions, shaking the bottle after each addition, and preserve the mixture in a stoppered bottle. Characters and tests—specific gravity, 1·075 ; 352·4 grains by weight (6 fluid drachms) require for neutralization 920 grain measures of the volumetric solution of soda.

The specific gravity of the acid, as prepared by the directions of the Pharmacopœia of 1864, is 1·070, and 352·4 grains require for neutralization 93·88 grains of volumetric solution of soda of the standard ordered in that work. The acid keeps well in ordinary temperatures, and appears to have little tendency to change.

The nitro-hydrochloric acid, mixed as directed in the Pharmacopœia of 1867, yielded the following results :—The specific gravity of the two acids, on admixture, and, after cooling, was 1·277, but on standing for twenty-four hours as directed, was 1·268. On adding the quantity of water for the production of the dilute acid, the specific gravity was found to be but 1·063, and 352·4 grains, or 6 fluid drachms, required but 840 measures of volumetric solution of soda for neutralization.

This experiment having been conducted with a view to determine the loss of hydrochloric acid consequent upon leaving the mixed acids for twenty-four hours, the operation was conducted so that on the mixture of the two acids in a loosely-stoppered bottle, the escaping chlorine should be collected under a bell-glass, and should be received into a solution of potassa. This solution, at the end of the twenty-four hours, was subjected to estimation by means of nitrate of silver, and was found to be charged with chlorine, which, calculated as hydrochloric acid, was found to be in such a proportion as to have diminished the strength of the nitro-hydrochloric acid by about 3 per cent. The loss of nitric acid was not estimated.

Proceeding somewhat differently, with a view to the production of dilute nitro-hydrochloric acid, the following process was adopted :—The proportions of acids ordered in the Pharmacopœia of 1867 were united, and, on cooling, the specific gravity was 1·277. The water was then added, and the specific gravity was 1·074, thus corresponding to the theoretic gravity of the Pharmacopœia of 1864. 352·4 grains required 1000 measures of volumetric solution of soda. This experiment was made on the 31st of May, and the tests were again applied on the 29th of August, when no variation had taken place, thus proving that the diluted acid was not impaired by keeping for a moderate length of time.

So carefully have the framers of the British Pharmocopœia performed their task, that it would ill become an experimentalist to question the value of formulæ which are now so well standing the test of pharmaceutic experience, but whatever may be the estimation in which the process for the production of diluted nitro-hydrochloric acid is held, it is clear that it can scarcely attain the result desired—viz., uniformity. If the acids are mixed as directed, there must necessarily be loss, for it is not easy to imprison the escaping vapours, and an explosion would be likely to occur in a bottle well stoppered ; in one not so, as directed, the escape of vapours is considerable, as indicated by the experiments detailed in this paper.

The following works were presented :—The 'Proceedings of the American Pharmaceutical Association,' 1866, from that body ; the 'Laboratory' (whole series), from the editor.

The thanks of the Conference were voted to the respective donors.

The meeting adjourned until Wednesday morning.

[The want of space compels us to withhold the second day's proceedings until our next publication.]

Sir Joseph Napier has been appointed Vice-Chancellor of the University of Dublin.

Gleanings.

Treatment of Biliary Calculus—Dr. Lutton in an article in the *Nouveau Dictionnaire de Medicine et de Chirurgie Pratiques*, observes that the radical treatment of biliary calculus should be undertaken only in the intervals between the attacks of hepatic colic, otherwise the symptoms which require special management will only become aggravated. He first describes the treatment of biliary calculi, and then that of the symptoms which they produce.

1. As a remedy for the calculi, solvents have been employed. *a.* Alkaline solvents are much to be preferred to all others ; they have produced certain and permanent cures. Sometimes, under their influence, the calculi are broken up or really dissolved, and disappear without leaving any traces ; but most usually they are expelled in abundant bilious evacuations. This crisis, preceded often by violent hepatic colic produced by the treatment itself, is not always without danger. The alkaline treatment comprises various medicines, such as the fixed alkalies, salts of soda, carbonate of ammonia, vegetable salts of alkalies, etc. ; but the most usual are the waters of Vichy, Vals, Carlsbad, Ems, etc. These waters are used in drinks and as baths ; and they must be employed perseveringly, at different periods, during several years in succession. *b.* Durande's remedy consists in the administration of half a drachm to a drachm every day of a mixture containing fifteen *grammes* of sulphuric ether and ten *grammes* of oil of turpentine. Its use has been attended with success ; but, far from this success being due to its solvent action, it is found that, where it has succeeded, the calculi have been expelled without being dissolved ; so that this remedy appears only to excite evacuation, and belongs rather to the class of expulsives than of solvents Chloroform has been much vaunted by some, but its efficacy is very doubtful, and it only calms the pain. *c.* As a mechanical expulsive agent, purgatives especially should be ordered ; frictions, douches, shampooing, and electricity, have also been employed to favour the expulsion of calculi. Purgatives are preferable to all these, especially sulphate of soda and castor oil. In diet, the patient should use fresh and laxative herbs (such as the cichonaceæ and boraginaceæ), grapes, and fruits, and whey. All fat should be excluded from the food, and the diet should be plain and properly proportioned, consisting of roast or boiled meat, vegetables, farina, lemonade, etc. Exercise is salutary, but its object here is less to complete the combustion of fat than to favour the escape of the bile into the intestine, and to prevent it from accumulating in the gall-bladder.

2. In the treatment of the symptoms of biliary colic, we should specially seek to assuage the pain. Opium may be given without fear, even in doses of fifteen or twenty *centigammes* (two and one-third or three grains) ; but sub-cutaneous injection of hydrochlorate of morphia is preferable. Belladonna, praised by Bretonneau and Lalotte, is not so good as opium, and should only be used when this fails. The same remark is applicable to cherry laurel water and to tincture of castoreum. Chloroform administered by inhalation until anæsthesia is produced is a valuable remedy when paroxysms are most violent ; it not only calms pain, but may lead to the cessation of the spasmodic contraction of the biliary passages, and thus favour the expulsion of the calculus.—*Gazette Med. de Paris.*

The Doctor made General. — During the Spanish War of Independence the yellow fever broke out in the head-quarters at Mula. The General-in-Chief, Mahy, immediately sent for Dr. Hernandez Morejon, Physician-in-Chief of the Military Hospitals established at Oribuela, and represented to him the critical state of the army. "General," replied Morejon, "I only see one means of arresting this scourge ; either become yourself for one hour, Physician-in-Chief of the army, or permit me, for the same space of time, to fulfil the functions of commander-in-chief." "Here is my commander's baton," replied the General, "You have only to give your orders." Morejon instantly had the town evacuated, encamped the troops in the open air in the midst of the fields, and the yellow fever rapidly disappeared.—*Gazette Médicale.*

A Hospital on a New Plan at Nashville.—The St. Vincent de Paul Society has established a first-class Hospital, bearing the name of the Society, and under the Medical control of the Faculty of Medicine of the University of Nashville. It is so arranged as to offer superior accommodation to

persons who visit the city in quest of Surgical or Medical treatment, as well as for the unfortunate poor. Any Physician of the city is invited to take any patient he desires to the Hospital, and attend him there under the nursing of the Sisters of Charity, where he would be as free from the students and Physicians of the College as if at a private house.—*Boston Medical Journal.*

NATAL LEECHES.—A local Practitioner states, in *Natal Mercury*, that the leeches of the district leave little or no scar, and are therefore valuable when it is required to apply leeches to the face or neck. The Natal leeches are smaller than those used in English practice, and have not yet been exported. Whatever we may think as to their size, we find it rather difficult to conceive of a leech which is an effective blood-sucker and yet leaves no cicatrix to tell of his appetite.

Medical News.

HER MAJESTY THE QUEEN has intimated to Lord Derby her wish that a pension should be conferred on the widow of Farady.

UNIVERSITY OF CAMBRIDGE.—HUMAN ANATOMY AND PHYSIOLOGY.—The Professor of Anatomy has given notice that his course of lectures will commence on Thursday, October 24, at one P.M., in the new Museums, and will be continued on Tuesdays, Thursdays, and Saturdays, and occasionally on other days, at the same hour. Demonstrations and teaching of practical anatomy daily in the Old Anatomical School by the Professor and the Demonstrator of Anatomy.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—At a meeting of the College, on the 16th instant, the following office-bearers were elected for the ensuing year:—President: Mr. James Spence. Treasurer: Dr. John Gardiner. Librarian: Dr. Archibald Inglis. Secretary: Dr. James Simson. President's Council: Dr. James S. Combe, Dr. Andrew Wood, Dr. James Dunsmure, Dr. James D. Gillespie, Mr. William Walker, Mr. Henry D. Littlejohn; Ex-officio, Dr. John Gairdner. Examiners: Dr. James Simson, Dr. William Dumbreck, Dr. Archibald Inglis, Dr. Robert Omond, Dr. James Dunsmure, Dr. Peter D. Handyside, Dr. James D. Gillespie, Dr. H. D. Littlejohn, Dr. Patrick H. Watson, Dr. David Wilson, Dr. John Smith, Dr. D. M. C. L. Argyll Robertson. Assessors to Examiners: Dr. James S. Combe, Mr. James Syme, Mr. William Brown, Dr. Adam Hunter. Conservator of Museum: Dr. William R. Sanders. Officer: Mr. John Dickie.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual stated meeting, held on St. Luke's day, 18th October, 1867, the following officers were elected for the year 1867-68:—

President—Fleetwood Churchill.
Censors—Samuel Gordon, V.P.; William Moore, Wensley Bond Jennings, Arthur W. Foot.
Treasurer—Henry Law Dwyer.
Registrar—Lombe Atthill.
Honorary Librarian—T. W. Belcher.
Librarian on Dun's Foundation—H. J. Fennell.
Representative on the Medical Council—Aquilla Smith.
Professor of Medical Jurisprudence—Robert Travers.
Agent to Dun's Estate—R. U. Roberts.
Examiners in Midwifery—John Ringland, George Johnston.

At the same meeting the following Licentiates were duly elected Fellows:—

Marcus Eustace, Thomas Hayden, James Little.

And the following gentlemen were duly elected Honorary Fellows:—

Sir Joseph Francis Olliffe, M.D.Paris, F.R.C.P.Lond.; William Farr, M.D.New York, F.R.S., D.C.L.Oxon.

Pursuant to the School of Physic Act, the Rev. Humphrey Lloyd, D.D., Provost of Trinity College, attended the meeting, and administered the elector's oath to the President and Fellows, who thereon proceeded to elect a King's Professor of Midwifery, on the Foundation of Sir Patrick Dun; and a ballot having taken place, Dr. E. B. Sinclair, a Fellow of the College, was declared duly elected. This was the first election held under the Amended School of Physic Act of 1867, and the attendance of Fellows was very numerous, over thirty being present.

BLOOD CORPUSCLES IN CHLOROSIS.—M. Duncan, of St. Petersburg, has just pointed out the remarkable fact that the blood discs of chlorotic persons yield up their colouring matter more easily than do those of healthy subjects.

A FEW days ago several large aerolites fell in the neighbourhood of Kiltealy, in the county of Wexford, and continued burning for some time after they reached the earth. Some fires, which have recently occurred in farmers' yards, involving the destruction of hay and grain, are attributed to the descent of aerolites.

THE next International Ophthalmological Congress will be held in four years' time at Berlin; while for the next year's meeting of the German naturalists and physicians Dresden has been chosen.

THE Quekett Microscopical Club have decided to publish Transactions quarterly under the editorship of Mr. W. Hislop, F.R.A.S.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

J. A. H. is thanked for his communications. We congratulate him for the initiative he has taken in so important a matter, the results of which cannot be doubted.

S. S. Bury, St. Edmunds.—We were in ignorance of the fact until the receipt of your intimation.

B. D.—You had better not connect yourself with the institution in question.

F. R. C. S.—The dispensary mentioned is one of the best in London. You had better call on the present staff.

M.D.—You cannot meet so notorious a quack in consultation without losing your own position.

Carlton Club.—The address of the contributor named shall be sent you by private note.

Mr. Russell will please receive our best thanks.

H. D.—Yes. At all times acceptable.

Fellow.—A very interesting subject, no doubt, to the general public, but of little use to the Profession.

WINDFALLS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The pertinent queries put by "Interloped" deserve the serious consideration of our profession. He is perfectly correct in stating that there are such things as medical windfalls, and that they are "managed" through interest and favour I am quite certain of. In fact, I know a case where "a windfall" was procured through a "simple note" given by a "friend" to a "friend," who presented it to a "friend" who had influence with the "powers," and the result was quite satisfactory; further, the influential friend is no less than one of our great Directory—viz., a member of the General Council of Medical Education!!—Yours truly, MEDICUS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Attention having been drawn to this matter by a correspondent in your journal of last week, I trust it will not be allowed to drop till the attention of the authorities shall be roused to the existing abuse, a remedy applied, and the red-tapism hanging at the tail of such appointments, as are worthy the acceptance of respectable practitioners, be effectually swept away. Within the scope of my own experience, I could relate many such, and even more flagrant cases of abuse of power than those mentioned by your correspondent, who, like myself, is partial to what it seems impossible, without friends, to obtain. How long, sir, are men, who have passed with honour their several colleges, to be shut out from these posts, because the chance of getting them is not a question of merit at all, but merely whether you can claim the privilege of shaking hands with one of the gentlemen at Whitehall. There are few enough appointments, worth having, open to the profession; and that those which are, should be beyond the range of competition, seems an intolerable disgrace to, your obedient servant,
M.R.C.S.

REGISTRATION OF BIRTHS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Allow me, through the columns of your valuable journal, to thank "A District Registrar" for the information I have received in his letter published on the 2nd inst. I imagine that your correspondent who signs himself "A Constant Reader" in your last publication is an English resident, as the rules which he mentions I believe are not applicable to Ireland. I think it would be desirable to have the same rules for registration in Ireland as in England. Might I ask my friend, "A District Registrar," if it would be possible to have the registration effected through the Post-Office, as it is a hardship to take a commercial man away from his pursuits at a time of the day most disadvantageous for him, probably when he should be in the *market-place*, besides expense of car-hire into a country district.—I remain, truly yours,
ANTE-DISOBLIGING BIRTH REGISTRAR.

Lecture.

ABSTRACT OF AN INTRODUCTORY LECTURE TO THE COURSE OF "CLINICAL MEDICINE" DELIVERED AT MERCER'S HOSPITAL.

OCTOBER 28, 1867.

By Dr. MOORE, M.R.I.A.,
PHYSICIAN TO THE HOSPITAL, &C.

DR. MOORE commenced by stating that he considered no system of medical education could be regarded as complete, which did not embrace an amount of knowledge of physical and natural science. He fully concurred with Dr. Burrows (President of the General Medical Council), that if the medical man was to maintain his position and influence in society, his general education should, at least, be equivalent to that of the students entering the clerical or legal professions. By a wide range of education, habits of correct observation and reasoning were attained, qualities which were the best preparations for mastering the various abstruse problems presented to the students in the theory and practice of medicine.

It was only by such a groundwork, that the study of the human organism could be approached in an enlarged and philosophical spirit.

He maintained that true medical science must be based on an intimate acquaintance with the dictates of natural laws, and thus a clearer insight into the prognosis and treatment of disease was obtained.

In proof of this he adduced cases of fever, some of which, in obedience to natural laws, were like a thunder shower, relatively short in proportion to the intensity of the symptoms, whilst in other cases where the symptoms were comparatively negative, the convalescence was relatively protracted, and this prognostic knowledge, so to speak, was of all importance as pointing out a definite line of treatment for these respective cases.

The lecturer then showed them the importance of an intimate knowledge of anatomy, physiology, and its twin sister, histology, which two latter sciences had recently made such rapid strides through means of the microscope. In connection with this subject, he referred to the valuable additions to our knowledge of the nervous centres contributed by Dr. Lockhart Clarke; to the philosophical investigations at Wurzburg, "on the physiological action of the sulphate of atropine and acetate of veratrine, the former affecting the terminations of the nerves of the non-striated muscular fibres, and those of the vagus nerve supplying the heart; the latter acting more especially on the force of the vaso-motor system and the nerves of the heart and lungs, also, to the interesting experiments which are being conducted by Dr. Hughes Bennett and others "on the amount of bile secreted by the liver, and how far it is influenced by mercurials. He then went on to say that whilst anatomy, physiology, histology, chemistry, &c., must be taught in the lecture-room, he believed the day was not far distant when the theory and practice of medicine and surgery, would be taught within the hospital walls as no delineations, symptoms or physical signs, of disease could be presented to the student, in a manner at all to be compared with that presented at the patient's bedside, where also a candidate's fitness for his final qualification could best be determined.

Dr. Moore next referred to the use of the laryngoscope, ophthalmoscope, endoscope, sphygmograph, &c., all of which were valuable instruments as adjuncts in the diagnosis of disease. But he warned students not to trust over much to such appliances, for there was a knowledge above and beyond what could be obtained by such means, which these instruments might tend to supplant. He instanced the case of an apparently healthy man complaining of loss of voice, the expert in the use of the laryngoscope at once applied it. He found a relaxed and attenuated condition of the vocal cords and vocal muscles generally, and used various topical appliances to restore their tone, but without effect; whereas, if he had taken a wider view of the case, perhaps some irregularity in the size of the pupils might have been observed, with increased temperature of half the face and head; or a difference in the respiration in either lung,—perhaps an irregularity in the pulse at the wrists, or complaint of neuralgic pains over the chest, these or other kindred comparatively negative symptoms and physical signs, would point to the presence of some intrathoracic tumour pressing on the recurrent laryngeal nerve, and hence the atrophic condition of the vocal muscles and loss of voice, which were mere symptoms of a remote disease, and which it is needless to say were beyond the reach of topical appliances.

Again, ever such familiarity with the use of the sphygmograph should not induce them to apply it in cases of suspected cardiac disease, till all the general collateral means at their disposal for the diagnosis of disease had been exhausted, then apply the sphygmograph and its delineations of the pulse, "valeant quantum valeant," as a link in the diagnostic chain. He then spoke of the value of the thermometer, and the interest which attaches to its use in confirming co-relation in disease. He advised them to take the widest range of observation, to exhaust all collateral symptoms and physical signs by the various means at their disposal, and thus, and thus only, would they be enabled to lay the groundwork for a lasting superstructure.

Before entering on the details of what would be required of the students, Dr. Moore referred to the history of the hospital in which they were assembled, which was one of the oldest of the medical benevolent institutions in this metropolis, being far advanced in its second century.

Among the first Board of Governors, so long ago as 1736, in addition to the then Primate, Lord Chancellor, Bishops of Cork, Kildare, Waterford, Kilmore, and Derry, he found the names of Robert, 19th Earl of Kildare, Lords Southwell, Tullamore, and Belfield; Pakenham, Putland, Latouche, Wesley (whose name originally had been Colly), grandfather of the illustrious Duke of Wellington, Butler, Tighe, Hutchinson, Daunt, Dobbs, Rochfort, and others.

This hospital had held its place among the foremost of the kindred institutions in this city in the amount of relief it had afforded, and simultaneously, as a school of medicine and surgery. Within the past year a most important addition had been made to its sphere of usefulness by the opening of two additional wards for the reception of infectious diseases, with an area of 2500 cubic feet to each patient.

Again, in direct ratio to the extension of the city in a southward direction has been the increase in the number of accidents and emergencies, which are far in excess of what the public could contemplate, the number for the past month amounting to 170. Such a variety of medical and surgical disease afforded the widest range of observation to the student.

He urged on them the great importance of regular attendance at hospital, and went over in detail the best mode of examining the patient and of recording the case. He told them how valuable such records of disease might prove to them in after life, as a reference, when perhaps they might be called on singly and unaided to undertake the treatment of some obscure and anxious case. He dwelt at great length on the importance of gentleness in their demeanour to, and sympathy for, the sick, that any reasonable amount of examination would be submitted to by the patient, provided it was conducted in a kindly and becoming manner; in fact, patients in clinical hospitals, as a rule, appreciated such minute and careful examinations, when gently conducted, as they saw an amount of interest taken in their case, which equalled, if in many instances it did not surpass, what was or could be bestowed on their more wealthy fellow-men.

In connection with the subject of duty, and how it had been nobly performed by students trained within these

walls, he referred to the comparatively recent burning of Her Majesty's ship *Bombay*, which was attended with the loss of about 100 lives, the only commissioned officer, however, who perished, having been the senior assistant-surgeon, John Keville Smallhorn. Up till the last moment, when the half burned spars were falling from aloft, and the boats pulling away, he was seen at one of the sick-berth (hospital) ports, getting out the sick in the midst of the surrounding fire and smoke. One of the lieutenants shouted "Jump overboard or you will be lost." He did so, following his *last* patient, a boy. When they reached the water, a burning spar struck poor Smallhorn on the head, when he sank never to rise. Dr. Moore went on to say—This noble fellow, was educated in this venerable hospital, and in the Ledwich School of Medicine, and it would ill become me, representing as I do both these institutions to some extent, to let this opportunity pass without expressing the admiration we must all feel for such heroic conduct, and whilst we must deplore the loss of such an *alumnus* as assistant-surgeon Smallhorn, still our regret is qualified by the reflection that he could not have lost his life in a better cause, than in saving the helpless sick, who without him must undoubtedly have perished. Dr. Moore then entreated them to rely upon their own industry, by which alone any sure basis of success in after life could be attained; that any "short cuts" to knowledge were ephemeral, and in this nineteenth century would soon be exposed. He assured them that in direct ratio to the attention they bestowed on their profession as students, so it would be reflected on them in after life, in independence and confidence (not arrogance or assurance), and he concluded by telling them in the words of the poet, that—

> "Glorious was their aim—to ease the labouring heart,
> To war with death and stop his flying dart,
> To trace the source whence the fierce contest grew,
> And life's short lease, on easier terms renew:
> To calm the frenzy of the burning brain,
> To heal the tortures of imploring pain,
> Or when more powerful ills all efforts brave,
> To ease the victim no device can save,
> And smooth the stormy passage to the grave."

Original Communications.

HISTORICAL SKETCH OF THE DISMEMBERMENT OF PHARMACY FROM PHYSIC.*

By M. DONOVAN, M.R.I.A.,

HON. MEMBER OF THE PHILADELPHIA COLLEGE OF PHARMACY.

THE distribution of the healing art into the three several branches of Medicine, Surgery, and Pharmacy has no foundation in nature, is artificial, and a comparatively modern invention.

That whoever undertook the treatment of the sick, not only devised the remedies, but prepared them for administration, is sufficiently probable; and that such a practice prevailed in the earliest ages of the healing art, in all countries the records of which have reached us, is placed beyond doubt by ancient testimony. Such were the duties of the Roman medicus, or of the Grecian ιατρος: such are the duties of the modern general practitioner; the general practitioner is therefore the most ancient as well as, in a certain sense, the most extensively useful representative of the medical profession. Until comparatively modern times the pure physician, as he is now called, had no existence, and it might be readily conceived, even were there no historical evidence of the fact, that the treatment of every morbid condition of the human body was undertaken by the same person.

But there is abundant proof that such a practice prevailed, not only in the earliest ages of the healing art, but at all times down to a comparatively modern period. We find ancient writers on the composition of medicines addressing the reader in the second person, and instructing him, not only how to prepare each remedy, but to employ it in the treatment of disease; indeed, there are very few of them who do not enter into the medical use of the articles described. We find that persons who sold simples to the multitude were taken into the employment of physicians, and gradually acquiring knowledge in this way, often ventured to do a little on their own account; and as there was no tribunal to test competence, they became general practitioners, like those who originally employed them. Pliny informs us that the physicians of his day, and of a period long before it, were little better than specious impostors. An indignant Roman, who had some experience of doctors, and wished to perpetuate his opinion of the skill of those who attended him during his last illness, directed the following inscription to be engraved on his tomb:—

"Turba medicorum perii."

That public shops were kept by physicians appears from several instances, but particularly from the fact stated by Cassius Hæmina (quoted by Pliny), that Archagathus, a Grecian physician, who settled at Rome, B.C. 218, had a shop provided for him to receive his patients, bought at the expense of the city; this shop stood in the cross-street of Acilius. On his first arrival he was much employed, and his income was considerable. But having an unlucky predilection for cutting, cauterising, and amputating, and the Romans having a very great disrelish for this sort of practice, he soon lost his popularity, and was called the human butcher. This man's unpopularity brought the whole profession into disrepute at Rome. Plautus, who flourished two centuries before Christ, in his comedy called Mercator, puts into the mouth of one of his characters, "ibo ad medicum atque me ibi toxico morti dabo." This is an important sentence—"I will go to a physician, and *there* terminate my existence by poison." It appears that the physicians kept shops or magazines where medicines and poisons could be bought, and where it was not unusual for the patient to swallow the dose.

Scribonius Largus lived in the reigns of the Emperors Tiberius and Claudius, that is in the middle of the first century of the Christian era. He was certainly a physician, although Dr. James calls him "a medicinal writer"; for, in his epistle to Caius Julius Callisto, he says, "Hippocrates conditor nostræ professionis," and a practising one also; for, speaking of the use of a certain remedy in many disorders, he says—"et ego magna ex parte expertus sum." That he compounded his own medicine appears from his own peroration, where he says, "harum compositionum *ipse composui* plurimas." And that he kept ready-prepared medicine for his patients, or officinal formulæ, appears from what he says of a particular medicine of which he thought highly, "quamobrem semper habeo id compositum."

Scribonius practised in the manner of other physicians. He tells us of one Pacchiochus Antiochus, a physician also, who had a secret remedy, originally invented by Appollonius, so profitable to him that he would never disclose its composition, although often solicited. Scribonius says, "*ipse* enim clausus *componebat*, nec ulli suorum committebat. Plura enim quam recipit ipsemet contundi jubebat pigmenta fallendi suos causa." We therefore find this physician compounding his nostrum in secret, and purchasing and pounding more drugs than he employed, in order to deceive his own family. We also find an implied allusion to the servant whose province it was to powder the different articles, for, in these days as the present, pestles and mortars were used by the medical practitioners; they were made of Ephesian or Theban marble, but the best were made of a stone called Bassanites, it not suffering by abrasian, and therefore communicating nothing to the medicine. After the death of Pacchiocus Antiochus, his wonderful secret was disclosed by Tiberius Cæsar, by whose orders its composition was placed in the public libraries: its chief ingredients were colocynth, saffron, some herbs, spices, and gum-resins made into a confection with honey. Scribonius and Marcellus both give this history in the same words.

* In compliance with the wish of the Editor, that I should give a reference to the authorities from whom I quote, I have done so in the following communication.

Galen, notwithstanding his extensive experience, and his high rank as a physician, conducted the business of pharmacy also at his own house. No doubt he kept a servant to do the heaviest part of the duty. After detailing the symptoms of his patients he frequently says—"I compounded for him the following medicine." Even some of the most disagreeable departments of pharmacy were transacted at his house. I need not refer to the disgusting details of his mode of procuring human fæces, which he used as remedies.

There was a physician named Cosmus, who, as Marcellus informs us, had amongst his secrets a wonderful collyrium, which cured all diseases of the eyes, and consisted of twenty-eight ingredients. From this it is plain that Cosmus must have compounded and sold it himself, or it could not have remained a secret. To have compounded twenty-eight ingredients into one collyrium seems to imply the possession of no small pharmaceutical skill, and we learn from the facts described that regular physicians compounded secret nostrums without incurring professional opprobrium.

The same author mentions that the physician Soranus, who is alluded to by other ancient writers also, settled in Aquitania, where he attended 200 persons labouring under mentagra, or some obstinate spreading disease of the skin of the face. Soranus used to apply a kind of ointment of cantharides to the part affected, having previously carefully bathed the face with an alkaline solution. These remedies were applied to the face by the physician himself, and this gives us some further insight into the nature of the medical practice of the time.

The foregoing facts, and many others that might be adduced, establish the fact that the physicians of ancient times practised medicine, surgery, and pharmacy; that they kept shops or repositories of medicine, with which they were always well provided: in short, that they were just the same as the general practitioners of the present day. Galen mentions that Cassius, a celebrated physician of Rome, kept a slave named Atimetus, for compounding a medicine of his invention.

We find that the same combination continued to obtain for several centuries after the period to which the foregoing observations apply; at least, in some countries, this was the case in the strictest sense, although, in others, there were some physicians who began to entrust their duties to persons who were very badly qualified for their performance. In Arabia, the combination of the three professions can be traced through a long series of ages. Serapion (the Arabian), who, in the eighth century, wrote a work on pharmacy, evidently addresses students in the practice of medicine when he teaches the art of compounding. He says, "For him who wishes to compound medicines as he ought, it is necessary that he understand their virtues profoundly," "therefore a knowledge of the degrees of the powers of medicines is the foundation on which he must depend in the cure of disease." "You require a recondite knowledge of simple medicines, so that by their aid you may be competent to compound, in all places, from the articles which you find.

Mesue, an eminent practitioner, and fourth in descent from Abdela, king of Damascus, writes in the same strain; and, while teaching pharmacy, evidently addresses medical students.

The same may be said of Avicenna, who wrote in the tenth century. Speaking of the Tyriaca Esdræ, he says, "et de *medicis* sunt quidam qui *ponunt* in ea de ammoniaco; et, de iis, sunt quibus illud non videtur quoniam ammoniacum nocet stomacho."

In order to render this matter more intelligible, it will be proper to give an account of the different classes of persons who, in addition to those already mentioned, had any connexion with the collection or sale of medicines; and to endeavour to ascertain what were the real functions of those persons, and what was the extent of their connection with the healing art.

It will no doubt occur to many that the word apothecary is frequently found in the English translation of the Old Testament, and that his art is there referred to, thus leading to the great error of supposing that in these passages we have evidence of the separate practice of pharmacy at the period alluded to. In Exodus we find the following:—"And thou shalt make it an oil of holy ointment, an ointment compounded after the art of the apothecary;" and "thou shalt make it a perfume, a confection after the art of the apothecary, tempered together, pure and holy;" and in 1st Samuel it is said—"And he will take your daughters to be confectionaries, and to be cooks, and to be bakers." The word "confectioner" here used is in the original, the same as is in the other passages translated by the word "apothecary." Now, one of the earliest forms of medicine was called a confection; there are compounds of the present day which have the same name in the pharmacopœias, and hence medicinal confections are nearly two thousand years old. Those who made and sold such compounds were, in later times, called "confectionarii." By the edict of Frederic I., in the beginning of the thirteenth century, the confectionarii were legally established in the southern parts of Italy, under an oath that they would always have in readiness fresh and adequate medicines, the price of which was regulated by the edict; and that they would prepare medicines exactly according to the prescriptions of physicians. Yet, Actuarius, a celebrated physician, who practised at Constantinople in the thirteenth century, in his work de medicam. comp., gave a list of medicines which might be substituted for others deemed of the same power (Mangeti Bibl.), and other tables of succedanea have since appeared. Besides these medicines compounded with honey or sugar, the confectionarii sold sweetmeats. They were also called apothecaries, along with some other traders who sold merchandise; for apothecary merely means a shop or magazine where any sort of merchandise is sold—and apothecarius is the proprietor of such. Thus, from the intermixture of the two trades, a confusion of names ensued; and it is on this account, no doubt, that we find in Scripture the same word one time translated "apothecary," and at another time confectioner. Even in the present time apothecaries sell what are called confections, and confectioners sell medicated lozenges. I have looked into a MS. Bible in the British Museum, supposed to be older than Wycliffe's, for the passages in which the word "apothecary" occurs in our present translation, and find that, in all cases, it is translated "oyntmente maker," but that is not an apothecary.

The trade of preparing and vending ointments and aromatics seems to have been extensively practised in early Greece and Rome; but the persons who carried it on frequently sold certain medicines along with these other wares. None of them sold medicines exclusively.

The Lacedæmonians banished ointment-makers because they wasted oil, and dyers because they destroyed the whiteness of wool. The sage Solon interdicted the sale of ointments altogether as only appertaining to luxury (Athenæus.) The ointments used in the time of Homer were kept in alabaster boxes; they were also kept in vases. The picture of one is given in "Le pitture antiche d'Ercolano," the narrow mouth of which shows that these ointments must have been liquid. The Romans had a different ointment for the different parts of the body. The ointments bore a higher price than any other luxury. When an Egyptian king died no one dare use them (Diod. Sic.) So perfect were the Egyptians in the manufacture of these odoriferous ointments, that an ancient specimen still exists which retains its perfume. The spikenard of the ancients, from which so costly an ointment was prepared, was determined by Sir Wm. Jones to be a protean plant, valerian, a sister of the mountain and Celtic nard. (Asiatic Researches.)

The market-place at Capua, where perfumes and scented ointments were sold was called Seplasia. The person who sold the ointments was called μυροπωλης; the maker of them was called μυρεψος, or ointment boiler. But there

were persons who, besides ointments and perfumes, sold the articles used by physicians, and as they frequented the Seplasia, they were called seplasiarii. This name continued in use for many centuries, and at last was used to designate the persons who compounded for physicians, their province not being to prescribe. In this sense, we find the word used so late as 1541. The work of Nicolaus Alexandrinus was written, as he himself says, for the use of the physician and the seplasiarius. Whoever wishes to learn the exact nature of the office of the seplasiarii, and unguentarii, and their defence against the imputation of base practices, will find it in a work published at Rome 1603, entitled "Collegii aromatoriorum almæ urbis, nominis pharmacopolæ et seplasiarii pro defensione animadversio." The ancient seplasiarii had been charged by Pliny with sophisticating their drugs, and selling stale plasters and eye-salves, the refuse of their stock. We learn from the same author that the physicians not only purchased this refuse, instead of making their own compounds, but were even ignorant of their composition, to the great detriment and danger of their patients.

The name medicamentarii signified the same as pharmacopolæ; for medicamentum, like pharmacon, is either a remedy or a poison; and medicamentarius is a vendor of both. The pharmacopolæ were in the habit of sitting the whole day in the forum, with their little vessels, boxes, and baskets, and did not return home until a late hour. Some of those persons, instead of standing stationary at their stalls, wandered about with their wares: they were called περιοδευτης, or medici circumforanei; in late times they obtained the name of mountebanks, which is a literal translation of the Latin name saltimbanci—the French call them charlatins.

There was an extensive and useful class of dealers called *pigmentarii*, from the Latin pigmentum. Although they originally sold painting materials, they gradually added other commodities, such as exotics, spices, all sorts of condiments, and medicinal substances. Another class of persons who were connected with the sale of these commodities were the παντοπωλαι, who retailed incense, scents, along with all those articles which were used by painters, dyers, ointment boilers, and physicians. Medicines were called ιατρικη υλη, or physicians' materials; and this is the origin of the Latin words *materia medica*. Very little different from the pantopolæ were the ῥωποπῶλαι: they not only sold medicines, simple and compound, but they prepared the latter, and especially counterpoisons, along with the foregoing articles. The pharmacopolæ carried on a trade, the nature of which may be collected from the derivation of their name. The word φαρμακον means a drug possessed of active qualities, whether salutary or poisonous; the name φαρμακοπῶλης therefore signifies a vendor of drugs, whether salutary or poisonous; and the word was translated into Latin by *aconitarius* or poisoner, from aconitum the poison *monkshood*.

Theophrastus gives a curious account of the tricks, superstitions, ignorance, and knavery of the pharmacopolists, and rhizotomists or herbarists, of his time (B.C. about three centuries); and of the devices by which they sought to mystify their art. From this author we learn that the herbarists order some articles to be collected when the wind is in such a direction as will permit the effluvia to be blown away, such as the fruit of the dog-briar, for, otherwise, say they, there will be danger to the eyes. Other articles cannot be safely gathered unless the body of the herbarist is smeared with oil to defend it from noxious vapours. They asserted, for instance, that hellebore is of so acrimonious a nature, and so certain of affecting the head, that it is not possible to dig it for any considerable length of time. Other herbs were declared to be dangerous if cut at any other time than at night; others should be cut by day; and others, again, before sunrise, under penalty of various fanciful dangers. They found it necessary to say their prayers while they gathered some; or otherwise to protect themselves by describing circles round the plant with a two-edged sword. Sometimes, the operator, while at his work, should look towards the west, sometimes towards the east, at the same time saying his prayers. Other times, a mode very different from this pious process of herb-gathering was resorted to: the operator was directed to dance about in a circle, and while thus gamboling, to utter a variety of lascivious expressions. Above all things, they were to guard against the approach of an eagle, for, if this ill-omened bird flew very near one of these herbarists, so envied by the gods for their power over human life, the world was sure to be deprived of the valuable services of this personage in the succeeding year. Theophrastus was too sagacious a person to be deceived by these impostors into a belief of their crafty fictions; he merely relates them as fabrications. Not so Herodotus, who, having been a much more credulous character, often allowed himself to be made the vehicle to posterity of many an absurdity. Be this as it may, it is certain that the rhizotomists and pharmacopolists did all in their power to monopolise the trade, and extort a high price for their services by their impudent falsehoods.

It is not surprising that when the list of materia medica became numerous, and when many articles were brought from foreign countries at great trouble and expense, the physicians should employ other persons to supply them; it is indeed more a matter of surprise that they were ever able to supply themselves. Previously to the days of Herophilus, the pupils of physicians used to go into forests and deserts to collect simples at different seasons. We learn from Horace that there was a whole street in Rome occupied by persons who sold this kind of merchandise.

In the fourth century of Christianity, we find traces of the partial separation of pharmacy from medicine; and mention is occasionally made of physicians who prescribed for the sick, and caused their prescriptions to be compounded by the pigmentarius, as in the well-known passage of Olympiodorus. This innovation made a very slow progress, and it would be tedious and useless to follow up its history, so gradual was the change. The learned Conringius, writing on this subject, and on the utility of public pharmaceutical establishments, says—"plurimis quidem seculiscaruit iis (officinis publicis) ars medica, ipsis medentibus domi pharmaca sua conficientibus. Idem mos hodieque obtinet per omnem Asiam. In Africa primùm videntur medici hanc curam á sese in alios rejicisse, ante hos quingentos amplius annos. Avenzoaris sanè ævo qui seculi duodecimi initio undecimi fine floruit, morem illum in Africa obtinuisse, non videtur dubitandum."

Thus, according to Conringius, the physicians of Africa were the first that surrendered the practice of pharmacy into other hands, and the change began about the end of the eleventh century. The custom passed from Africa into Spain, and thence to Italy, where the confectionarii were established by the edict of Frederic II., king of the two Sicilies, under an oath that they would prepare medicines exactly according to the prescription of physicians. The better to carry this salutary regulation into effect, the physicians were directed to inspect the shops, which were called *stationes*, where the business of compounding was transacted. Thus, in the southern parts of Italy, the separation of physic and pharmacy was, for the first time, enjoined by royal authority.

All that we learn from Conringius is that the separate practice of pharmacy became more general in Africa than in other parts of the world; but it by no means follows that there was any formal dismemberment of medicine at that particular time: it was like any other great change, a very gradual and slow process. We find that the connection subsisted in other countries for centuries after this. Of many instances that might be given, I shall adduce one only, and a remarkable one, from the writings of the German alchemist Glanber, who lived about the middle of the seventeenth century. Speaking of the German physicians, he says that they bought medicines from apothecaries and chemists, and that after putting them through some further preparations, they administered them to their patients. He adds that many physicians take more care

of their kitchens than of their patients; and, by buying ill-prepared medicines from unskilful persons, bring the noble art of the chemist into disrepute. But he admits that an industrious and accurate physician is not ashamed to make his medicines himself.

The first distinct declaration that I have been able to find, which defines the duties of a compounder of medicine as separated from those of the physician, is in a work written by Saladin, of Ascalon, chief physician to the Prince of Tarento. Tiraboschi, quoting Fabricius, says that Saladin was alive in 1163. This pompous physician begins his book, which is without a date, by declaring that on account of the ignorance and unskilfulness of the *Aromatarii*, for this is the name under which the ancient pigmentarii were then designated, the most learned doctors are brought into contempt, and much danger results. Therefore (he says), moved by compassion for physicians, and by the entreaties of many aromatarii—I, Saladin, Doctor of Arts and of Medicine, have determined to write this treatise, entitled "Compendium Aromatariorum." Saladin seems to have been the first that proposed that the aromatarii should not be allowed to compound medicines without submitting to examination by skilful physicians; and, if found ignorant, that they should be visited with condign punishment. His book is written with the design of being the text for examination. The first question in it is "What is the duty of an aromatarius?" The answer is "terere, abluere, infundere, coquere, destillare, bene conficere, et confecta bene conservare. Propter quæ omnia dico ulterius quod aromatarii tenentur scire grammaticam, ut valeant bene intelligere dispensationes receptarum, et antidotariorum et scientiæ medicinæ." Here, then, is a clear definition of an aromatarius of Tarento about the year 1163. Saladin further describes what sort of person an aromatarius or apothecary should be. He ought not to be a boy, nor very young; nor proud, pompous, or addicted to women and vanity. He should be a stranger to the gaming table and tavern. Neither for love, fear, or money shall he do anything contrary to conscience or the honour of a physician. He shall not administer to pregnant women medicines calculated to provoke abortion; nor through fear of power, or love of money, shall he prepare poisonous medicines or poisoned cups; nor make syrups with honey which should be made with sugar. The aromatarius, of himself and without the permission and advice of a skilful physician, is not to do anything, and especially he is not to add anything to laxative medicines. He is to reject spoiled medicines and pills which have become as hard as stones, and he shall not substitute one thing for another when he happens not to have the article. Saladin lastly informs us of a very important part of the duty of the aromatarius, one which, if used in the present day, would be considered a very gratuitous exercise of his duty:—"The aromatarius," he says, "should know the taste and smell of the different simples, so that if any young and inexperienced physician should wish to prescribe horrible or disgusting medicines for any sick person, the aromatarius shall not allow it to be done, but shall expostulate with the physician in order that better and more agreeable ones may be substituted, lest by the use of the former the stomach of the patient be disturbed.

To these prudent instructions, for the benefit of the aromatarius, Saladin subjoins others still more prudent, touching the utility of a wife, and how much such an appendage to his establishment tends to keep him in order.

From this book we at least learn that the edict of Frederic II. was not inoperative in the southern parts of Italy, and that the profession of the compounder of medicine was, in Italy, in the twelfth century, perfectly distinct from that of the prescriber. We also learn that the compounders were so ignorant as to bring physicians into disrepute; and that some of them were so nefarious as to prepare poison-potions for any one that paid them, as indeed is broadly hinted in the "Golden Ass" of Apuleius. The ignorance of the aromatarii seems to have been an universal subject of complaint and dread to physicians; and the labours of Saladin seem to have very little improved them. For, in half a century after, we find in the Thesaurus Aromatoriorum, written by Paulus Svardus about the beginning of the sixteenth century, and dedicated to "The Most Worshipful Doctors of the College of Milan," the following passage—"cum animadverterem, colendissimi doctores, quamplures, in nonnullis aromatoriorum apothecis, errores ignorantiâ committi, etc.," and it was on this account or pretext that he published his book.

There is some uncertainty about the etymology of the word apothecary. Spelman defines apothecarii thus—"vaticinatores, procuratores, anglicè stewards." Apotheca, a magazine, from *απο*, an intensive preposition; and *τιθημι*, to put up, and apothecarius should mean the steward who puts things together with care. We have certain evidence of the word apothecary in a medical sense, and confirmed by use in such a manner as to constitute an acknowledged word in the public acts of England in the middle of the fourteenth century. We find in Rymer's Fœdera, Anno 1345, a grant of sixpence a day to "dilectus Coursus de Gangeland Apothecarius Londoniæ," "propter curam solicitam circa nos," what this personal care of the apothecary was we are not told. Yet, in Rymer, 1537, we find John Soda designated Pharmacopolam, showing that both names were in use in England at that time. For attending the Lady Mary he had 40 marks a-year. An army doctor had 4d. a-day. Fosbrooke says that the apothecaries first appeared in England in 1345; but the grant to Coursus de Gangeland shows that they were then well-known in London. In the south of Europe the word apothecarius was commonly used, and aromatarius was generally laid aside; and in 1504, a Doctor of Medicine and Arts published a book which he called Lumen Apothecariorum.

About the middle of the same century, during the reign of Elizabeth, a physician named Bulleyn thought fit to lecture the apothecaries of his time in much the same strain as did Saladin nearly four centuries before. His rules for the life and conduct of an apothecary have been preserved by Mr. Jeafferson; they afford a good specimen of the supremacy assumed by physicians over apothecaries in past times. The following are extracts:—"The apothecary must not be suborned for money to hurt mankind; his house and shop must be cleanly; his mortars, stills, pots, etc., must be clean and sweet; he must have charcoal at hand to make decoctions; he must have a clean place in his shop for physic, and 'a baser place for the chirurgerie stuff'; he must 'neither increase nor diminish the physician's bill (prescription), *and keep it up for his own discharge*'; he shall neither buy nor sell rotten drugs; he shall not substitute one ingredient for another in a prescription; he shall meddle only in his own vocation, and remember that '*his office is only to be the physician's cook*'; he shall use true measure and weight."—(A book about Doctors.)

The only part of this, in the present day, unnecessary advice with which the apothecary does not comply, is that important one of keeping the prescription "for his own discharge." Of late years the physician instructs his patient to produce his last prescription "at the next visit." The patient, preferring the original to a copy, obtains it—thus depriving the apothecary of the *means of recovering the debt*, should compulsion become necessary, and of exculpating himself, should any untoward circumstance occur.

ON PROGNOSIS IN CHRONIC HEART DISEASE.

By JOHN C. THOROWGOOD, M.D.,

ASSISTANT-PHYSICIAN TO THE HOSPITAL FOR DISEASES OF THE CHEST, AT VICTORIA-PARK.

GREAT and valuable as have been the diagnostic achievements of the stethoscope in the investigation of thoracic disease, there have yet been cases, neither few nor far

between, in which, while the most skilled masters of the stethoscope have detected all manner of abnormal sounds in the heart or the lungs, and have from such discoveries prophecied the speedy and inevitable death of the patient, this same patient has nevertheless gone on year after year eating, drinking, and gaining flesh, knowing and caring less and less, as time passes on, about the strange sounds which the doctors hear going on within him.

In many cases of chronic heart disease, I am convinced that the prognosis, founded too exclusively on stethoscopic examination, has often been needlessly grave and alarming; indeed I cannot but think that sometimes the mere loudness of some abnormal sound in the action of the heart has been interpreted to mean very serious disease that must shortly be fatal; the patient and his friends are thus filled with gloom, and there is established in the patient's mind a feeling that cannot but prejudice his chance of recovery in a considerable degree.

My own attention was drawn to the subject of prognosis in chronic heart disease several years ago when conversing with one of the physicians of a large hospital, who was saying how he used to have patients sent to him with various forms of chronic heart disease, attended with murmur, and how he usually sent the patient home with a letter of evil prognostication to be given to the doctor in charge of the case, or else to one of the patient's friends.

It happened, however, as years passed on, that often one or other of these patients would reappear, improved in a most remarkable degree, and the inference was clear that a noisy murmur in the cardiac region need not always, and of necessity, be held likely to lead to the death of the patient.

It was in 1857 I heard these remarks made in the wards of Guy's, and such observation as I have since been able to make, has convinced me of their truth; for while there are patients who for years keep about their business in tolerable comfort, and yet with loud and unmistakable cardiac murmurs present in their chest, there are others in whom it may be difficult, by means of the stethoscope, to substantiate the presence of actual structural change in the heart, and yet who are really in jeopardy of their lives in almost every breath they draw.

If these things are so, it is clear that too much attention cannot be bestowed on a case of heart disease in order to give a satisfactory prognosis, and the case must be regarded rather as one of *diseased circulatory apparatus* than of *diseased heart*, for this first expression takes in the heart, its walls, its valves, its vessels, and last, though not least, the state of the capillaries, as to what I have been in the habit of calling the *venous* or *arterial predominance* in these little vessels. Here it seems that in estimating the degree of tension in the vessels and capillaries, the sphygmograph will come in to take up the investigation where the stethoscope ceases to be further available.

To proceeed now to illustrate the point, that the mere loudness of a cardiac murmur need not necessarily lead to an unfavourable prognosis as to the future of the case.

In May, 1866, I saw a youth aged 15, in consequence of his having at times severe attacks of epistaxis, he has had these attacks at varying intervals as long as he can recollect. He looks healthy, has never had rheumatic, or any other fever, no cough, no dyspnœa, no œdema, tongue clean, appetite and digestion good.

On listening to the heart a very loud harsh systolic bruit is heard most intense over the apex, audible at the inferior angle of the left scapula behind, hardly audible at the cardiac base.

Two months later the murmur was just the same, the youth doing his work in the office, and being rarely troubled with the nose bleeding; after twelve months more the same report might be given, and since then I have seen no more of him.

Probably, in this case, the murmur was congenital. It was remarkably loud over the mitral area, but caused no appreciable discomfort in the way of dyspnœa, palpitation, or angina; neither did there seem any sign of textural change in the substance of the heart, or of dilatation of the cavities, and the consideration of all these matters fully justified a favourable prognosis.

A second somewhat similar case came under my notice in 1861, in the person of a young man aged 29. This patient had never had any acute rheumatism, so far as he can remember, but has for many years been liable to palpitation of the heart and dyspnœa, with coldness of his extremities, œdema of the feet, and some lividity of the features.

On auscultation, the presence of a harsh systolic murmur over the aortic valves is most unmistakable; at the apex, too, a murmur is heard, not so loud as at the base.

For a time this man suffered a good deal, and spent a month in one of the hospitals without getting any relief, for he came out in no way improved, and, after trying various remedies and plans of treatment, he at last began to amend while taking the dilute hydrocyanic acid, and went back to his work comfortable in himself, but with the murmurs in no way changed.

I saw no more of him for three years, when he called at my house one afternoon, while I was out, to let me know that he had got quite well, and was earning a good living by driving a cab.

I have important notes of two or three other cases similar to the foregoing. One was that of a youth, whom I have seen at intervals during the last four years, and who, in spite of a loud mitral bruit, persists in following very hard work; here there is a good deal of hypertrophy of the left ventricle. The hypertrophy seems of the simple kind, the cavities of the heart retaining their relative capacities, so far as I could learn. The mitral regurgitant murmur was always present whenever I examined the heart, although it is known sometimes to disappear for a time in cases of mitral regurgitation with simple hypertrophy superadded. With respect more particularly to murmurs that are connected with the aortic valves, and heard therefore in their greatest intensity opposite the third interspace, or upper part of the fourth rib, I can, from my notes of hospital out-patients, collect numerous instances among middle-aged, and elderly people, where I have watched a loud systolic basic murmur for years, without the patient feeling further discomfort than occasional cough and dyspepsia.

The cases, however, where there is a diastolic aortic murmur heard distinctly with the diastole, not only at the third interspace, but also down the sternum to the xiphoid cartilage, do not always go on so comfortably as those where the murmur is systolic only; this point we shall return to again, for our present purpose is to show merely that a very loud cardiac murmur alone need not, of necessity, be a cause for a prognosis unfavourable as to the immediate future of the patient's life, inasmuch as we can record instances of those who have lived, and earned their bread, while the action of their hearts has been attended with very loud abnormal sounds.

We next proceed to notice those matters which, taken in connexion with an audible bruit or murmur, will serve to guide us to a correct foretelling of what is likely to befall the patient.

(To be continued.)

CASE OF SYME'S AMPUTATION AT ANKLE-JOINT.

FOR STRUMOUS DISEASE OF THE TARSUS AND OS CALCIS: PRIMARY UNION OF THE STUMP.

By JOHN STUART VESEY, M.D., F.R.C.S.I., Etc.,

MEDICAL OFFICER TO THE MAGHERAFELT UNION INFIRMARY.

As union by adhesion is of such rare occurrence in cases of amputation at the ankle-joint, permit me very briefly to subjoin the following case:—

Mary Anne Clark, aged 44, a very intelligent woman, married, of a very scrofulous family, was admitted into the Magherafelt Union Infirmary, suffering from scrofulous disease of the tarsus and os calcis, of fourteen months standing, presenting all the well-known character-

istics of that disease. The foot is greatly enlarged, and great œdema extends up the leg, the joint very stiff, and four abscesses have formed in the vicinity of it; these abscesses have existed for fully twelve months. She complains of great pain, particularly at night, and the foot cannot be put to the ground or moved without the greatest pain. She is greatly emaciated, and says *positively* she has *not slept for ten months*. She never received any injury on the foot, and states the disease commenced without any local exciting cause. The first indication of anything being the matter with the foot, was fourteen months ago, when she was awakened out of her sleep, to use her own expression, as if needles were running through the foot.

As soon as her health was somewhat improved by tonics and nutritious diet, I advised her to have the foot removed, to which proposal she willingly acceded. On the 19th May, 1866, I removed the foot, together with the malleoli, and a thin slice of the articular end of the tibia, which latter part of the operation was expeditiously done with Mr. Butcher's saw. Never having seen the operation performed, or never having performed it myself on the living or dead subject, I followed the directions given in Erichsen, and kept close against the bone, so much so, I injured the blades of two knives, but I must say I experienced some difficulty in dissecting back the heel flap. There was nothing peculiar in the operation. There was scarcely any hæmorrhage. *Three* arteries required ligature, and the wound was brought together with three sutures and adhesive plaster, and a roller applied over all. She was greatly excited, and hysterical, during, and for some time after, the operation. When removed to bed she was administered an opiate, and towards evening she was quiet, and complained of very little pain.

20th.—Doing well; pulse quiet; slept during the night; complains of no pain.

21st.—Pulse quiet; no pain; no appearance of discharge through the dressings.

22nd.—Stump dressed; no suppuration from the wound; spent a good night; pulse quiet; appetite good.

24th.—Doing remarkably well; pulse 86; stump dressed; no discharge, even on pressure; the wound seems to be quite healed; complains of no pain.

26th.—Stump dressed; no pain; no discharge whatsoever. Removed the sutures, and one of the ligatures. The wound entirely healed, except where the two ligatures intervene. Bowels not moved. Ordered a purgative. (The remaining two ligatures came away in two days.)

I need not take up space by giving the daily account any longer; sufficient to say, she made a very rapid recovery, and daily improved in health and strength. She had not one bad symptom after the operation, and I believe sat up in bed on the eighth day.

It is now nearly a year and a-half since the operation. There is no appearance of disease attacking the stump, and says she has increased two stone in weight.

She now walks well, and without the least pain, on a boot which I have got made for her. I find, on accurate measurement, that the stump leg is exactly one and a-half inche shorter than the other.

PAPER ON PHAGEDÆNIC CHANCRE. FOLLOWED BY SECONDARY SYMPTOMS.

By ANGUS, M. PORTER, M.D.

[Read before the Ulster Medical Society, on Friday, 11th October, 1867.]

(Conclusion of Paper reported April 3rd, 1867.)

When criticising the former portion of my paper on this case, some members of the society expressed the opinion that the absence of any cutaneous eruption rather disproved a connection to exist between the morbid conditions of the eye and the primary sore.

Mr. Henry Lee (in his letter to the editor of the Medical Press and Circular, of April 17th, 1867), attributed the eye affections to debility of the system. On the 6th of last March, the missing link was supplied by the development of a tuberculous eruption, disseminate in character, and located as follows:—Three spots on the forehead, three under the hair of the head, one on the chest, a number between the shoulders, one behind the right thigh, and two in a semi-ulcerated condition, to the left side of the nose; there were also four irregular spots on the chin. Some of these patches were sore, others of them intensely itchy. His ears were very painful, and discharging a scanty quantity of serum; both tonsils were deeply ulcerated; his tongue was slightly furred, but his appetite was good, and his bowels were regular. The throat was thoroughly cauterized with the stick nitrate of silver. He was still taking cod liver oil. Recommended a renewal of the corrosive sublimate (the use of which had been suspended), also twenty drops of tr. of steel, to be taken three times daily, and occasionally a full dose of Dover's powder at night, to be followed by Gregory's mixture next morning.

On the 10th of March the spots had begun to wither up; their colour also had altered from a bright-red to a copper hue. No fresh ones had appeared.

From the left ear a black fœtid discharge, and from his right ear a white starchy matter oozed freely; the ulcers on his tonsils were less unhealthy looking, but were again cauterized, and ten grains of chlorate of potass was ordered to be taken each morning before breakfast.

On the 16th of March no new spots had appeared, and the old crop seemed to be dying away. His throat was considerably better; his complexion was very dusky, and his spirits were dull. He suffered a good deal by his ears, the discharge from which was much lessened, and frequently became concreted. On May the 16th, Dr. W. MacCormac kindly accompanied me to visit the patient, at which time his general appearance was better. Dr. MacCormac then agreed with me in considering the case one of true constitutional syphilis. The eruption on this occasion had died away to a considerable extent, but slight ulceration of the tonsils still remained. His ears were much better. Some of the concatinate glands were enlarged, as they had been for a few weeks previously.

Since then I have seen the subject of this paper, and am happy to state not a trace of the old disease remains, and that he now enjoys perfect health.

CHOLERA THEORIES.

No. VIII.

The part of Dr. Chapman's work devoted to cholera comprises six chapters, entitled respectively—(1.) Definition, history, and symptoms; (2.) Post-mortem phenomena in cases of death during choleraic collapse; (3.) Pathology of cholera; (4.) Causes of cholera; (5.) Treatment, comprising (*a.*) treatment by cold and heat, and (*b.*) treatment by medicines; (6.) Cases and results. Chapter I. we must pass over altogether. Chapter II. contains a concise, yet detailed description of all the recognised phenomena observable after death during collapse; and every one of these, as well as the several symptoms of the disease characteristic of its successive stages, receives an elaborate and complete explanation in the course of Chapter III., which is distinguished alike by the originality of the views it expounds, the ingenuity and cogency of the arguments by which they are enforced, the faithfulness to well-established facts which, by way of confirmation or explanation, are referred to at every step, and by the mastery by which the author co-ordinates and uses his abundant materials for the establishment and maintenance of his doctrines. It is only by becoming thoroughly familiar with the contents of this chapter that the reader can correctly inform himself of the essential nature of Dr. Chapman's hypothesis. We shall therefore devote the greater part of the space to be occupied with this analysis to an account of his *pathology* of cholera.

Having passed in review certain hypotheses already propounded, and notably those of Professor Parkes and Dr. George Johnson, the latter of which he submits to what

appears to us to be so crushing a confutation, that in a former number of this series of articles we were tempted to reproduce the major part of it,* he opens his own exposition as follows :—

"The pathological doctrine, the truth of which I hope to prove to the satisfaction of every competent judge, may be concisely embodied in the four following propositions:—

"(I.) All the phenomena of cholera are due to simultaneous hyperæmia of the spinal cord and of the sympathetic nervous system.

"(II.) All the phenomena of cholera are naturally divisible into two classes, accordingly as they are referrible to the spinal cord, or to the sympathetic ganglia as their cause.

"(III.) All active or positive phenomena are due to hyperæmia of the spinal cord.

"(IV.) All passive or negative phenomena are due to hyperæmia of the sympathetic ganglia.

"The symptoms of cholera are ranged in the following lists as positive or negative phenomena according to my conception of their proximate cause :—

"POSITIVE PHENOMENA.

a. Abnormally copious and pale urine.
b. Albuminous urine.
c. Abundant secretion of bile.
d. Abundant secretion of pancreatic juice.
e. Borborygmi.
f. Excessive activity of the mucous membrane and of all the glands of the alimentary canal.
g. Abnormally high temperature within the rectum.
h. Excessive activity of the mucous membrane of the gall ducts and gall bladder, of the pelves of the kidneys, and of the female genital organs.
i. Abdominal gripings.
j. Excessive expulsive activity of the stomach and bowels.
k. Simultaneous excessive activity of thoracic and abdominal muscles.
l. Sweat in all its grades of copiousness, and fluidity.
m. Derangements of sensibility.
n. Tremors.
o. Muscular twitchings.
p. Fixed, stony expression of the face.
q. Tonic hardness of muscles.
r. Tightness across the lower part of the chest.
s. Cramps and convulsions.
t. Extreme contraction of the urinary bladder.
u. Restlessness and tossing of the limbs to and fro.

"NEGATIVE PHENOMENA.

a. Slight headache.
b. Deafness of various grades.
c. Tinnitus aurium.
d. Dizziness, slight faintness, syncope.
e. Drowsiness, sleeplessness.
f. Mental state.
g. Absence of tears, saliva, bile, and urine.
h. Short, struggling, and rapid respiration.
i. Cold breath.
j. Enfeeblement of the voice, aphonia.
k. Oppression and burning pain at precordia and left epigastric region.
l. Algide symptoms: Progressive changes in the visage, and in the colour, temperature, and general aspect of the skin.
m. Loss of cutaneous sensibility.
n. Serous exudation into the intestines.
o. Epithelial exfoliation of the intestinal villi.
p. Enfeeblement and death of the voluntary muscles.
q. Enfeeblement and death of the involuntary muscles, cessation of discharges, secretion still continuing.

In our account of Dr. Chapman's theory of diarrhœa, we have given his explanation of the sources and cause of the flux, which, as already said, he ascribes to excessive activity of the liver, pancreas, intestinal mucous membrane, and muscular coat of the intestines. During the fully developed stage of cholera, this abnormal condition is, he says, exceedingly intensified, and hence, contrary to the general doctrine—that during algide cholera the nervous system presiding over the stomach and bowels is subject to a profoundly depressing influence—he maintains that it is in a condition of extremely energetic and vehement activity. He adduces a large array of facts in proof of this proposition, and, amongst others, the following, observable in the alimentary canal itself, and in the discharges from it:—(1). Though the large amount of whitish flocculent matter constituting the characteristic element of the so-called rice-water evacuations has been the subject of much dispute, it is now indubitably proved to be simply mucus and epithelial cells. Now, as mucus is a product of true secretion, its enormous abundance in cholera dejections must be recognized as a proof that the mucous glands are in a state of tumultuous activity. (2.) It is to be expected, when we consider the nature of the structural changes taking place during the process of secretion, that a very large amount of cell-detritus should be found as the product and record of the vehement glandular activity which has occurred ; and, as a matter of fact, the majority of reliable microscopic observers testify to the presence, both in the intestines and in the discharges of cholera patients, of an enormous abundance of epithelial cells, which have been shed in every phase of development and decay. Dr. Andrew Clark, Dr. George Johnson, and the Committee of the College of Physicians of Philadelphia, appointed to investigate the condition of the mucous membrane of those dying of cholera, as well as many other observers, confirm the original statements of Böhm, that the white flocculent matter in question consists in part of epithelial cells in their various stages of development, separated or adhering together. Even Dr. Beale, whose theory as to the nature of the pathological changes occurring in the intestines, precludes him from recognising the significance here assigned to the facts in question, observes, "Lieberkühn's follicles, which open in the intervals between the bases of the villi, are secreting organs. Now, these follicles, so far from being denuded, are choked with epithelium." (3.) Further evidence of the exuberant vitality of the mucous glands consists in the fact of their extraordinary development and enlargement throughout the whole alimentary tract: the constant presence of this characteristic feature of cholera is attested by all careful observers. (4.) The evidence already mentioned all points in one direction, and that Dr. Chapman's interpretation of it is correct is proved, he maintains, by the numerous observations of the existence of an extraordinarily high temperature within the rectum during the period of collapse. (5). Moreover, the extreme activity of the mucous glands now described is not restricted to the intestines, but evidence of a like condition of the mucous membrane of the bronchial tubes, of the ducts and gall-bladder, of the pelves of the kidneys, and of the female genital organs, may be found in all cases in which the patient has died during collapse. "A recognition that the functions of this large body of secreting cells are thus augmented and intensified, produces and enforces the conviction," says Dr. Chapman, "that the nervous influence distributed to the entire glandular surface, must have been overwhelmingly energetic and intense, and that hyperæmia of the spinal cord is at once the proximate cause and complete explanation of this hitherto mysterious phenomenon."

The whole of the "positive phenomena" named in the list given above, are explained with the minuteness and scientific exactitude so well exemplified in the exposition of the phenomena observable in the mucous membranes. It is, of course, impossible for us to give a detailed analysis of each of the instructive and interesting sections in question. But we especially commend to our readers' attention the explanation of the mode of production of the recognized symptoms—abnormally copious and pale urine, albuminous urine, extreme contraction of the urinary bladder, sweat in all its grades of copiousness and fluidity. There is the less reason for us to advert here to the author's views concerning the functional derangements of the kidneys in cases of cholera, as they were recently explained by himself in this journal,* but we cannot refrain from expressing our admiration of the ingenious, and, as it seems to us, truly scientific way in which he explains the apparently paradoxical phenomena of the co-existence of an abundant outpouring of the sweat glands (which he shows to be not passive, but extraordinarily active) with a cold

* Medical Press and Circular, 1866. Cholera Theories. No. III.

* See "Case of Obstinate Suppression of Urine during Cholera: Reaction, Resulting in Uræmia and Delirium, Cured by the Spinal Ice-Bag."—MEDICAL PRESS AND CIRCULAR, October 2, 1867.

anæmic skin. Several of the symptoms, ranged as positive phenomena, consist of functional disorders of the muscular system, disorders which, according to the recognised doctrine of the mode in which muscular contraction is induced, are the necessary results of excessive energy, and, therefore, by hyperæmia of the spinal cord.

By way of introduction to his exposition of the negative phenomena of cholera, the author says—

"Every negative phenomenon denotes absence of some function or condition which exists as an attribute of the healthy organism, and is alike immediately due to the absence of arterial blood. It may be convenient to denote the state of collapse alone by the term *algide;* but, in doing so, we are apt to mislead ourselves, for, in fact, there is no line of demarcation between the stage of invasion and that of profound collapse at which it can be truly said that the algide state first manifests itself. This state is one comprising all degrees of intensity, and they merge into each other so imperceptibly, that it is impossible to mark the first advent of it, or to define its several degrees. During the stage of invasion, even before diarrhœa sets in, the temperature of the body begins to decline, and, as the disease progresses, continues to fall. Sometimes one part of the body, and sometimes another, becomes, at the onset of the disease, notably cooler than the rest. This local fall of temperature is more especially notable in the lower extremities, and over the surface of the abdomen. In the first part of this work I have demonstrated that the so-called premonitory diarrhœa of cholera is due to hyperæmia of the spinal and sympathetic nervous centres, and have given evidence that when that hyperæmia is subdued the diarrhœa ceases, and the surface of the body, which had been notably cool, becomes warm. When the nervous hyperæmia, which, in its slight degree, is productive merely of premonitory diarrhœa, with its accompanying symptoms, continues and increases, the contraction of the systemic and pulmonary arteries, as well as of the bronchial tubes, occasioned by the energetic action of the sympathetic ganglia, becomes increasingly stronger and persistent. The supply of blood to every part of the body, excepting the nervous centres and those organs which, by virtue of overpowering stimuli from the positive motor nerves, continue to attract it with vehement energy, is gradually lessened, and at length more or less completely cut off. During the increase, step by step, of the force and energy with which the muscular coats of the systemic and pulmonary arteries, as well as of the bronchial tubes, contract on their contents, the various phenomena of cholera which I call negative, are produced, and their progressive development denotes the intensity with which their proximate cause is operating."

The author then passes these symptoms in review, explaining them as he proceeds. His observations on the cerebral phenomena seem to us so peculiarly interesting as well as important, that we are tempted to give them *in extenso*.

"*Slight Headache.*—It may be stated as a general law, that the affinity between arterial blood and the nervous centres is greater by far than that which exists between it and any other of the organic structures; and, as a matter of fact, they are, in proportion to their bulk, supplied more copiously than any other, except perhaps the glandular, organs. It is obvious that the subtle atmospheric agents, whatever they may be, which induce the sudden development of epidemic cholera, heighten to an extreme degree the already supremely intense affinity in question. Thus it seems as if the blood withdrew itself to the citadels of life—the nervous centres—which, in fatal cases, are, of the various parts of the body, the last to die. But though the brain retains its circulation, and performs its functions so healthily as to excite general astonishment, while the life of nearly all the other organs of the body is rapidly or suddenly declining, the relation of the ganglia of the cervical sympathetic to the brain, involves the necessity, when they are hyperæmic, of the exertion of a considerable amount of contractile force by the muscular coats of the cerebral arteries. Hence it is that though the attraction between the nerve cells of the brain and arterial blood is so potent as to cause it to flow to them through the cerebral arteries, and thus to keep them dilated, notwithstanding the constringing force which is exerted upon them, that force does actually result in lessening the normal supply of blood to the brain, and thus produces the several cerebral symptoms about to be mentioned, of which slight headache is one. Observers of disorders of the nervous system are well aware that headaches of various degrees of intensity are produced by cerebral anæmia, as well as by cerebral plethora.

"*Deafness of various grades*, which is a very common symptom of cholera, is due to inadequacy in the supply of blood to the sensory ganglia.

"*Tinnitus Aurium*, or singing in the ears, is due to the same cause, and is an instance of that excessive excitability often observable in the brain of anæmic patients.

"*Dizziness* and *Slight Faintness*, or *Syncope*, I need hardly say, are symptoms of partial anæmia of the brain.

"*Drowsiness and Sleeplessness.*—It has been demonstrated by Mr. Durham (see Guy's Hospital Reports) that normal sleep is coincident with a supply of blood to the brain less than that which it receives during normal wakefulness. I have been able, by influencing the circulation in the sympathetic ganglia, through modifying their temperature, to confirm his conclusions completely. But I have also established, to my own satisfaction at least, that if the amount of blood in the brain be a certain degree less than that coincident with normal sleep, sleeplessness, and sometimes low delirium, as in delirium tremens, ensues. If the supply of blood be restricted still further, morbid drowsiness, or finally, coma, is induced. Irrespective of these states, which are phases in the progress of cholera, there is no doubt that sleeplessness, due to the distress and anxiety occasioned by the disease, often prevails.

"*Mental States.*—These, as already mentioned, are very striking, and their proximate cause will be fully understood from the foregoing explanatory observations. I may, however, point out how completely they elucidate the fact, that, though the force and activity of the intellect may be impaired, its functions are, as a general rule, never perverted until the stage of collapse has passed, and that of reaction has set in. *Anxiety*, often a prominent symptom, is also coincident with moderate depression of the cerebral circulation, which, if still further impeded, results in *apathy* and *indifference*, also notable accompaniments of cholera."

The next section, on the "Non-secretion of tears, saliva, bile, and urine," is not less remarkable and instructive, but it is too long for quotation. Seeing that, according to the writer's doctrines, the mucous glands of the stomach and intestines are in a state of vehement activity, during all the stages of cholera until that of reaction sets in; seeing, also, that in the initial stage, the kidneys and liver are also unduly active, the question arises,—how is it that as the disease develops, some glands continue to secrete with morbidly excessive energy, while others cease to do so? This question the author appears to us to have answered satisfactorily and completely, and we specially commend his explanation to the attention of our readers. We can only afford space for a few words concerning the recognised fact, that the secretion of bile and urine is arrested during fully developed algide cholera. Dr. Chapman shows that this arrest is due to the intense energy with which the blood-vessels of the liver and kidneys are contracted. The supply of blood to these organs being gradually lessened and finally shut off, their functions of course cease.

"That suppression of urine is, at least, frequently caused by spasm of the renal arteries, is well illustrated by the results of vivisectional experiments on the kidneys made by Bernard, who found that if a large opening were made in the abdomen, and the intestines were pushed aside, in order to expose the kidneys, a suppression of urine was almost always the consequence. He says (I translate literally), 'An operation thus severe, induces almost always in the case of the dog or rabbit, if not immediately, at least after a very few seconds, suppression of urine, and then the blood in the renal veins is seen to assume a dark colour, and often to become as black as that of the inferior vena-cava.' He further remarks, in a note to this passage, 'In man, pain and mental emotions are also capable of arresting the secretion of urine. M. Jobert de Lamballe, in his 'Plastic Surgery,' has mentioned cases of the operation for vesico-vaginal fistula, in which, in consequence of emotion, the flow of urine was suspended during the whole time of the operation, and, in some cases, for a considerable time afterwards."*

* "Sur les variations de couleur dans le sang veineux des organes glanduliares suivant leur état de fonction ou de repos." Par M. Claude Bernard.
"*Comptes rendus des séance de l'Académie des Sciences.*" 25 Janvier, 1858.

The author observes:—

"The post-mortem state of the liver and of the kidneys is perfectly accordant with the requirements of the theory here expounded, and is alone satisfactorily explicable by it. The volume of the liver is diminished, it is paler than natural, bloodless, and exhibiting no evidence of disease, or the action of a poison; its secreting structure, when examined by the microscope is found to be normal. . . . The only abnormal condition of the kidneys is venous congestion."

The discussion of another characteristic group of symptoms is introduced as follows:—

"*Algide Symptoms: Progressive Changes in the Visage, and in the Colour, Temperature and General Aspect of the Skin.*—Among the earliest symptoms of the stage of invasion, paleness and coolness of the skin are remarkable; gradually, or with more or less rapidity and suddenness, the paleness merges successively into pallor, duskiness, lividity, and, especially in the extremities, into dark cyanosis. Simultaneously the coolness increases, until it becomes 'a mortal coldness,' and the previously well-filled skin shrinks, and becomes corrugated, the fingers appearing in this respect as if they had been soaked for a long time in hot water. This group of symptoms denotes a diminution or arrest of the supply of blood to the surface of the body, and of those chemical transformations of the organic textures which constitute nutrition and local life. Now this diminution or arrest of the supply of blood, can only be effected with the force or suddenness with which it takes place by spasmodic contractions of the circular muscles which surround the terminal arteries conveying blood to the surface of the body; for, as I have shown, no form of asphyxia or arrest of the pulmonary circulation, is reconcilable with the phenomena of cholera. When the arteries are thus spasmodically closed, the arterial blood is shut off from the surface of the body, and, therefore, can no longer impart to it its wonted ruddiness, or healthy hue; while, on the other hand, as arterial blood ceases to pass through the capillaries into the veins, and to cause the blood in the venous radicles to 'move on,' venous congestion in those radicles occurs, and imparts to the skin that dark blue and remarkable livid colour which cholera patients present."

For the arguments by which this doctrine is sustained and illustrated, we must refer our readers to the work itself. But we cannot refrain from giving, in the author's own words, his explanation of the proximate cause as well as of the mode of exudation of the watery part of the cholera evacuations.

"*Serous Exudation into the Intestines.*—The group of algide symptoms so pre-eminently observable in the skin, are present, and are produced in the same way, though in different degrees, if my hypothesis be correct, in every part of the body. But in the intestines special conditions obtain: as already explained, the positive motor nerves of the alimentary mucous membrane and intestinal glands being in extremely predominant and energetic action, a large amount of blood is drawn by them through the intestinal arteries, is passed through the glandular capillaries, and is forced into the intestinal veins. But while the venous blood generally is hindered from passing freely through the lungs, by contraction of the pulmonary arteries and bronchial tubes, that in the intestinal veins is arrested, simultaneously with the secretion of bile, by the intensely energetic action of the hepatic negative motor nerves, which, bringing the functions of the liver to a stand, prevent the passage of any blood through it. Thus, while on the one hand the excessive secretive activity of the intestinal mucous membrane and glands is causing an excessive amount of blood to be compressed by the agency of their capillary force into the intestinal veins; on the other, the blood so forced into them having no normal exit, first distends them to the utmost, and then the serous, or most fluid part of it, oozes through them—their extremely thin walls being rendered still thinner, and therefore extraordinarily permeable, by the distension to which they are subject. Hence the exudation of the enormous amount of serous fluid which is discharged by cholera patients, which, as well as the œdema of the intestinal walls and the serous infiltration beneath the epithelial sheaths of the villi contributing to their exfoliation, is not only accounted for, but shown to be absolutely inevitable."

We are unable to dwell longer on the author's strikingly original exposition of what he calls the negative phenomena of cholera. The chapter on pathology is closed by a discussion of a series of phenomena not comprised in either of the lists already adverted to. We select for quotation a few paragraphs which throw a flood of light on certain facts which, though thoroughly established, have hitherto remained as utterly inexplicable as they are astonishing:—

"*Death of the Nervous System.*—I have already mentioned the fact, on the authority of Professor Parkes, that 'two or three hours before death there is often some return of heat in the scalp and forehead, over the region of the heart or whole chest, and it may be also over the abdomen; the extremities are still icy cold, and the cholera visage is unaltered. This partial return of heat on the head and trunk is an immediate forerunner of death, and, as far as I have seen, is invariably a fatal sign; it is occasionally confined altogether to the cardiac region, and is sometimes astonishingly great.'* This remarkable phenomenon is immediately due to the relaxation of the various branches of the pulmonary artery, of the bronchial tubes, and of those systemic arteries distributed over those parts of the body which during the disease have continued most vital, and have therefore preserved the highest temperature. The blood has continued to pass through these arteries most copiously, and is thus prepared to effect their dilatation, and to flow through them in fuller currents than before, the moment the energetic stimulus from the negative motor nerves, which has kept them in a state of tonic spasm, declines or ceases. Now already, when the phenomenon in question presents itself, the ganglionic nervous centres presiding over the arteries just mentioned have begun to die. Their convulsive grasp of the blood-vessels and air-tubes, which has already proved fatal to the system generally, is being relaxed, and they themselves are sharing the fate which, through their agency, has overtaken the entire organism. A last but vain effort for life is made, however, by the structures, released at length from the deadly influence of their excessive energy. The normal attraction between the venous blood in the pulmonary arteries and the air in the air-cells generates movement of the blood through the pulmonary capillaries; it reaches the left heart, and is thence forced most copiously into those systemic arteries just indicated, and thence, finding its way to the starving tissues, the usual vital changes occur. Meanwhile, as a result of the renewed oxydation occurring in the lungs, and in the parts supplied by the newly-relaxed systemic arteries, heat is evolved, and constitutes the phenomenon in question. But this local struggle for life is too late: its possibility depends on the presence of death in the nervous system, which soon seizing on the brain itself, closes the scene. This local increase of temperature before death is a strong proof that the blood-vessels are healthy; that the structures are healthy, and suffer only from lack of nourishment; that the blood itself is free from poison; and that the disease is seated in the nervous system.

"*The Increase or Long Persistence of Heat in the Body after Death*, which is a well-established fact, is merely the continuance and extension over the whole body, after the death of the brain, of the series of actions commenced before death, and explained in the preceding paragraph. The whole sympathetic system having ceased its functions, the arteries throughout the body relax: the small supply of blood in them is drawn through the systemic capillaries; every particle of oxygen which it can yield up combines with the surrounding structures; and while there are elements to continue these changes, the temperature of the body is raised, maintained, or prevented from declining with the rapidity usual after death from almost all other diseases. The reflux of blood throughout the body denoted by the general increase or unusual persistence of its heat must inevitably result in lessening the bulk of any organ which may have been unduly distended with blood. Such an organ in choleraic collapse is the spleen, which is found unusually large during life, but which after death presents in respect to size no constant appearance. It seems to me probable that when the evacuations are extremely abundant, the spleen is less distended than in other cases, and that the great variations of size which it presents after death depend upon the amount of the evacuations, and the extent to which the post-mortem arterial relaxations result in a temporary renewal of textural vitality, which, of course, implies to the same extent a diffusion of the previously pent-up blood throughout the body.

"*Post-mortem Changes in the Aspect of the Skin.*—These

* "Researches into the Pathology and Treatment of the Asiatic or Algide Cholera," pp. 101, 102.

result from the chemical changes occurring, and are caused as described in the preceding paragraph. The skin becomes lighter in colour, even when it has been especially dark, and has continued so for some time, because the oxydation of the blood changes it from blue to red, while the relaxation and partial dilatation of the terminal arteries cause the shrivelled aspect of the hands and feet to disappear.

"*Post-mortem Muscular Contractions.*—These extraordinary, and, to the ignorant, terrifying phenomena have never, I believe, received a satisfactory explanation; but the hypothesis here expounded reveals the cause of them at once. The arteries supplying the muscles, were vehemently contracted before death, but are now relaxed; immediately before death the muscles were deprived of blood, and therefore enfeebled to the utmost degree; after death receiving a new supply of blood, their hungering constituent elements receive fresh nourishment, with it new strength, and, under the stimulus of the still hyperæmic spinal cord, which is the last to die, contract in the manner described. It seems to me that if the waning life of the blood in the spinal cord be equally distributed, those apparently co-ordinated muscular movements, sometimes observable, are most likely to occur, and that when special segments of the cord retain their excitability longer than the rest, convulsive movements of one or of a few muscles only will result.

"*The early Onset of Rigor-Mortis*, is a fact in extremely interesting accordance with the requirements of the hypothesis I am advocating. When the cervical sympathetic of an animal is divided, and one part of it is excessively stimulated by means of galvanism, the arteries to which that part is distributed become, of course, strongly contracted, and in this manner a condition like to that which I affirm to exist in the arteries of a cholera patient in collapse is induced. Now, in such cases rigor-mortis invariably supervenes in the part of the animal thus experimented upon far more rapidly than elsewhere; and the fact that the same condition comes on with extraordinary rapidity after death from choleraic collapse, is a striking proof that the arteries of patients in that state are powerfully constringed by nervous agency."

The remaining paragraphs allotted to this group of phenomena are not less instructive, and certainly not less cogent, as arguments in support of the author's theory. They are severally entitled:—Additional evidence from post-mortem appearances; Epidemic attacks of cramps and spasms; Differences in the relative activity of the positive and negative motor nerves in different cases; The stage of reaction; The analogy between cholera and sea-sickness. The question which has been so long and so ardently disputed between cholera pathologists, viz.—whether or not there is a causal relation between the amount of the discharges and the intensity of collapse, is elucidated and disposed of in a manner which we think will preclude it from ever being raised again by any one who reads Dr. Chapman's disquisition; and certainly the analogy here pointed out between cholera and sea-sickness, which is much greater and more striking than is usually imagined, is suggestive of serious reflections, for, if the assertion of this analogy has any real foundation, Dr. Chapman's presumption is justifiable, that the proximate cause of the two affections is also of a kindred nature, and that cholera is neither contagious nor the result of a blood-poison.

(To be continued.)

FERDINAND ENKE'S MEDICAL PUBLISHING OFFICE AT ERLANGEN IN GERMANY.

The publishing business of scientific works in Germany is so widely different to that in our country, that a few remarks on it may be useful to English publishers, as well as to English authors.

As a rule in Germany, a book has but little chance of circulation if it does not bear on its title-page the name of a respectable publisher. That is the warrant for its contents, for such a publisher would by no means have his name printed on a book which has not been strongly recommended to him by his referees as worthy of publication. In this case he buys the right of publication from the author for heavy sums, and the whole publishing business is done at his own cost and risk. If a second, or more editions, should become necessary, a new arrangement is to be made with the author.

The consequence of this method of publishing is, that the author is sure to get a reward, if his work deserves such; that the public sees a certain guarantee in a good publishing office, and that the publisher thus is placed in an agreeable position to both the public and the author.

Hence, the principal publishing business is transacted by a few renowned firms, of which that of *Ferdinand Enke* at Erlangen, stands in the first line.

Having before us the catalogue of this firm, containing such books as have been published by it in the last few years, we have not to glance over a large number of unknown names of authors, and of their still less known works, but on men who have been long familiar to us, and whose volumes we have studied—Griesinger, Hebra, Oppolzer, Hirsch, Virchow, at the head, and of our own countrymen we see Tilt, Russell Reynolds, and Marion Sims. But before all, the two German standard works of medicine and surgery must be mentioned, the former being edited by Virchow, and all those colleagues of his who stand at the head of the profession in Germany, while the latter is edited by Billroth, Professor of Surgery, and Director of the Surgical Clinical Wards at Vienna.

Virchow's Pathology and Therapeutics has, as was expected, such a large circulation, that though more than ten years have elapsed since the publication of the first volume, yet it has not been finished on account of the necessity of new editions of the first printed volumes, some of which have already been translated into English, as, for instance, those containing Hasse's diseases of the nervous system, and Hebra's skin diseases. Amongst the other contributors it will suffice to mention the names of Lebert, Westphal, Wintrich, Vogel, Friedreich, and Biermer.

With equal ability the great German surgical work is conducted by Professor Billroth. The principal contributor was Professor Otto Weber, who, with his two assistants, found an untimely death a few months ago, being infected when dissecting a child who had died of diphtheria. Amongst the other contributors we find the names of Haeser, Gurlt, Agatz, Pitha, Wagner, and others. The work, four volumes of which have as yet been published, is illustrated by a great number of excellent woodcuts, and contains an atlas of all branches of surgery.

We hope to have an opportunity to treat more extensively on some of the works published in Ferdinand Enke's renowned office.

LITERARY ANNOUNCEMENTS.

The forthcoming publishing season promises to be fertile in new publications. Messrs. Churchill have announced twenty-two new works, and twenty-three new editions of former publications. Amongst the books which will be for the first time offered to the Profession are the following:—

"Lectures on the Progress of Anatomy and Surgery during the Present Century," delivered at the Royal College of Surgeons. By Sir William Fergusson, Bart., F.R.S.

"A Manual of Diseases of the Eye." By N. C. Macnamara, Surgeon to the Calcutta Ophthalmic Hospital.

"Researches on Diseases of the Stomach." By Samuel Fenwick, M.D., M.R.C.P., Assistant-Physician to the City of London Hospital for Diseases of the Chest.

"On Diseases of the Mouth, Lips, Tongue, and Jaws." By George Pollock, Surgeon to St. George's Hospital.

"The Nervous System." By Ludovic Hirschfeld, edited by Alexander Mason Macdougal, F.R.C.S. Part III., six plates.

"A Compendium of Practical Medicine and Morbid Anatomy." By William Dale, M.D. Lond., Member of the Royal College of Surgeons of England.

"On Certain Diseases of the Chest." By A. T. H. Waters, M.D., F.R.C.P., Physician to the Liverpool Northern Hospital.

"The Pathology and Treatment of Congestive and Inflammatory Diseases, as occurring in their varied forms and complications." By John Pursell, M.D., F.R.C.S.

"Cholera: its Origin, Idiosyncrasy, and Treatment." By Ferdinand E. Jencken, M.D., M.R.C.P.

"On Hay Asthma and Hay Fever." By William Pirrie, M.D.

"Notes to the British Pharmacopœia." By Charles Henry Wood.

"On Digitalis." By T. L. Brunton, B.Sc.; M.B. Edin.

"Report from those who have used 'Pancreatic Emulsion of Fat.'" By Horace Dobell, M.D., Physician to the Royal Hospital for Diseases of the Chest.

"Egypt and the Nile, as a Resort for Invalids." By John Patterson, M.D., L.R.C.S.

"Manual of Orthopædic Surgery." By B. E. Brodhurst, F.R.C.S., of St. George's Hospital.

"On External Inflammations; on Inflammatory or Sympathetic Fever; and 36 Years' Experience of Bleeding." By J. H. James, F.R.C.S.

"Liverpool Medical and Surgical Reports."

"On the Maintenance of Health." By Henry Lowndes, Surgeon to the Liverpool Northern Hospital.

"On Ulcers and Cutaneous Diseases of the Lower Limbs." By John Kent Spender, M.B. Lond., Surgeon to the Mineral Water Hospital.

"On Local Anæsthesia Fluid." By Benjamin W. Richardson, M.D., F.R.S.

"Illustrations of Diseases of the Eye, with a Brief Account of their Symptoms, Pathology and Treatment." By Henry Power, M.B., F.R.C.S., Surgeon to the Royal Westminster Ophthalmic Hospital.

"On the Formation of So-called Cells in Animal Bodies." By Edmund Montgomery, M.D., late Demonstrator of Morbid Anatomy at St. Thomas's Hospital.

The new editions comprise—Fifth of "Rambsbotham's Obstetric Medicine." Fourth of "Carpenter on the Microscope." Fifth of "Squire's Companion to the Pharmacopœia." Second of "Squire's Pharmacopœias of the London Hospitals." Fourth of "Winslow's Obscure Diseases of the Mind." Second of "Winslow on Suicide." Second of "Morris on General Matter, and the Contact Theory." Third of "Beale's Urinary Deposits." Second of "Russell Reynolds on the Brain." Second of "M'Call Anderson on Eczema." Third of "Noad on the Induction Coil." Second of "Virchow's Cellular Pathology." Second of "Smith on the Rectum." "Holden's Anatomy." "Hyde Salter on Asthma." "Adams on Rheumatic Gout." "Pavy on Diabetes."

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 30, 1867.

THE FLUCTUATIONS OF DISEASE IN LONDON AND DUBLIN.

THE fluctuations of disease in a community existing in successive seasons under apparently similar conditions, vary greatly.

In London the deaths in the last quarters of the years 1860-4, numbered respectively 15,197, 15,866, 17,717, 18,857, and 19,636.

It is not always to zymotic diseases that these variations are attributable, for during the period just mentioned, those diseases in the aggregate occurred in a decreasing ratio. Individual diseases of the zymotic class may, however, increase, even to an alarming extent, although the gross mortality from the class may represent itself by decreasing numbers.

Taking typhus, the numbers in the five years above-mentioned were, respectively, 311, 624, 796, 881, and 1064. Thus, this one formidable malady evidenced a remarkable and progressive increase. It was, however, to diseases of the local class that the increase was chiefly owing.

Turning to the medical statistics of Dublin, we find that fluctuations in the prevalence of disease also occur. In the two great fever hospitals of Dublin, the Cork-street, and the Hardwicke, we find the aggregate mortality in the year ending spring 1857, to have been 238, and we note that a steady decrease in the mortality from fever, occurred each year, until that ending spring 1862, when the deaths in the two hospitals were collectively 188. During the four succeeding years, however, the increase was plainly observable, and it culminated in the year ending spring 1866, when the aggregate deaths in the two institutions numbered 328. The succeeding year the cholera visited Ireland, and fever has exhibited, happily, a marked decrease.

Very great room, however, still exists for improvement in the sanitary condition of Dublin, as, although allowance must be made in the first year of Registration Act, our Registrar-General's returns show need for amendment. Thus, in 1864-5-6, the annual mortality has been respectively 7345, 8151, and 9034. Much of the increase of the year 1866, was owing to the prevalence of cholera and of fever, which latter, throughout the Irish metropolitan district, slightly exceeded the mortality from the same cause in the preceding year.

The mortality from small-pox fell, in 1866, to 25 fatal cases, against 71 in the preceding year, a result doubtless owing much to the exertions of the Medical Profession in their endeavours to promote the practice of vaccination; we must not, however, neglect to impress upon the authorities and the public, the necessity of attention to this most important matter, as unquestionably in some cases the existence of the disease is kept secret by the lower classes, of which fact the Poor-law Commissioners are aware.* In the nine months of the present year ending 30th September, but one death from small-pox has been registered in the Dublin district, and that occurred in the case of a girl aged twelve years, who had not been vaccinated.

Scarlatina caused 100 deaths in the Dublin district in 1865, 109 in 1866, and 116 up to October 12,

* Report of the Irish Poor-law Commissioners, 1867.

1867. Measles rose from 12 deaths in 1864, to 164 in 1865, and caused but 54 in 1866, but in the first forty-one weeks of 1867 the mortality from measles has actually been 337. The fluctuations in the mortality from measles have been very remarkable in the three months ending September 30, in the years 1864-5-6 and 7, the deaths from this cause being respectively 0, 63, 9, and 109. In the same period of the same years, diarrhœa proved fatal to 110, 131, 92, and 132 cases. Fever caused in the four years above-named, 72, 86, 110, and 65 deaths respectively. In the September quarter of the present year, whooping-cough caused 65, and scarlatina 50 deaths.

The different periods of the year, of course, present remarkable changes in the fatality of the same diseases; we must at present, however, confine ourselves to a few observations upon the relative prevalence and severity of the same diseases in different years.

The total deaths in the quarters ending in September, in the years 1865-6-7 were, respectively, 1734, 1891, and 1810; we regret, therefore, that we cannot wholly concur with a medical contemporary in the estimate given of the sanitary state of Dublin, at the same time that we gladly acknowledge the exertions of those gentlemen in whose care the sick poor and the cleansing of our city are. Knowing as we do the immense labour, mental and bodily, and the great risks entailed on our professional brethren, we consider that they are worthy of our warmest thanks for their exertions in behalf of the sick; and though we are not unmindful of the difficulties the Health Committee of the city have to encounter, we would rather encourage them to further exertion than lead them to expect any sudden or remarkable amelioration in the state of the public health.

SEA-SIDE DRAINAGE.

It will not have escaped the notice of our readers that for some time past we have devoted much attention to the great sewage questions which, in various forms, are constantly cropping up, and respecting which it is still desirable that many accomplished facts and results should be collected. To this work we propose to give up a portion of our space. We have already obtained no small amount of information, which cannot fail to interest the Profession and to excite the attention of engineers and others engaged upon such works. This we shall lay before our readers in as condensed a form as possible, and so, from time to time, recur to the subject.

The sad effects of the too general pollution of our rivers, and the evil consequences likely to ensue, we have already to some extent pointed out, and shall not fail to renew the topic.

Sea-side drainage is a subject of kindred interest, which we opened last week. The remarks we then made have excited so much interest in some of our favourite British watering-places that we are compelled to continue our observations, for it would be impossible for us to print the whole of the correspondence we have received upon the subject from the several towns which claim to supply us with pure air and agreeable recreation for the wearied denizens of our cities, or suitable climates for our invalids.

We propose, at intervals, to notice each in turn, and in every instance to avail ourselves of all the information we can obtain as to the actual state of the drainage—what progress has been recently made, and what improvements are necessary or contemplated.

We last week alluded particularly to Hastings and St. Leonard's, and we shall confine our observations to these townships. It has been pointed out to us by a gentleman, upon whose knowledge and veracity we can place the most implicit reliance, that our remarks were capable of a construction not in accordance with fact, and a correspondent who seems deeply interested in the subject, attributes to us a degree of partiality which we must emphatically disclaim. We can only be concerned for the advance of efficient drainage as an important social and sanitary reform. How that reform is effected, so long as it is thoroughly carried out, is to us a matter of minor consequence. We are glad, however, to be able to rectify an error into which we had fallen in speaking of the Hastings and St. Leonard's scheme as one. The original idea of a joint drainage for the two adjoining (shall we say rival?) health-resorts, was abandoned, and two separate schemes have been arranged—one of which is already completed.

To put the facts clearly before our readers once for all, we may state that St. Leonard's is governed by a Sanitary Commission, quite independent of the Hastings Local Board. For some time negotiations went on between the Hastings Local Board of Health and the St. Leonard's Commissioners, and it was at first proposed to drain the two towns by joint action.

This arrangement was put an end to by the Hastings Local Board in the spring of last year, apparently in order to avoid any annoyances incidental to joint action between two independent bodies, and, at the same time, to enable the Hastings Board to retain full and unquestioned control over the works of their own district. Thereupon the St. Leonard's Commissioners called in Mr. Bazalgette, the Engineer of the Metropolitan Board of Works, who devised a scheme for draining their district, which has been carried out under his superintendence, by Mr. Webster, of London.

On the other hand, the Hastings Board relied upon local talent, and their works, which are not yet completed, have been devised by Mr. Andrews, surveyor to the board, and carried out under his direction by Mr. Howell, contractor, of Hastings.

We have no wish to pronounce an opinion upon the prudence of the course adopted by either authority. M Bazalgette's name is known to all our readers, and that the drainage of St. Leonard's was safe in his hands seems to be proved by the result, for we are credibly informed that St. Leonard's now possesses a system of drainage that has answered in every respect since it was completed last July, and the cost of executing it has been very moderate, considering the character and excellence of the work.

The Hastings works are, as we have said, not yet finished, and local talent—in the persons of the surveyor

and contractor, has, so to speak, "to win its spurs." We can assure them both, as well as the inhabitants of Hastings, that we heartily wish them every success. We shall be very glad if they prove themselves worthy rivals of their London competitors by conferring on their fellow-townsmen a system of drainage as complete and inexpensive as their neighbours of St. Leonard's have obtained, by enlisting the services of the first engineer of the Metropolitan Board of Works.

Notes on Current Topics.

LONDON HOSPITALS.

Our hospitals are acknowledged, on all hands, to rank with the most valued of our public institutions. Whether viewed as schools of medicine, where the young aspirants for the profession may qualify themselves for the rightful discharge of their future duties, or as refuges for the poor and needy in times when disease invades, and accidents disable them, the importance of such establishments cannot be too highly estimated. They have hitherto done their duty well, and, thanks to the opulent and charitable, have not lacked the necessary support; and, thanks not less to the disinterested and distinguished members of the profession, the highest skill has invariably been found displaying itself in their wards. With a rapidly increasing population, and a consequent increase of the necessitous among them, it may happen that the present amount of hospital accommodation will be found insufficient before long. Indeed, it appears as if something of this kind were already felt, judging from what is already taking place in different directions. The University College Hospital is building another story. St. George's and Charing-Cross Hospitals are making additions; while the authorities at St. Thomas's have at length decided upon a site on the southern bank of the river, in a neighbourhood where the poor are located in large numbers. No doubt their new building will correspond, in a great degree, to the increased requirements of the day.

LONDON WATER SUPPLY.

Many speculations are rife as to the probable nature of the forthcoming report of the Commission over which the Duke of Richmond presided. Eminent medical and chemical authorities were examined, as well as many of the first engineers. We have reason to believe that the report will decidedly recommend that a constant supply, of which we have long been the advocates, is a first necessity. Further, we believe that the Thames will be recommended, under all circumstances, as the most suitable source from which to derive our supply. Although many engineers, and some chemists, are strongly in favour of a more distant source, the precise and exact evidence of Dr. Letheby will, no doubt, be found to have had great weight. With his positive statements as to the chemical qualities of Thames water, which no one has ventured to impugn, before them, the Commissioners will scarcely recommend us to embark in any of the costly schemes that have been mooted. It is, perhaps, not too much to say that, on this point, his opponents completely broke down.

ST. ANDREWS GRADUATES' ASSOCIATION.

At the last meeting of the Council of this vigorous young society, it was arranged that the General Session should be held at Willis's Rooms, on the 2nd and 3rd of December. A dinner will be provided on the evening of the 3rd. The Association now numbers 385 graduates. The time has surely come for taking active steps respecting the Scotch reform bill, expected next session.

BOAT-RACING.

In our number of October 16, we briefly alluded to the discussion in boat-racing, which was commenced by Mr. Skey, and which has since been freely commented upon by the press, both medical and general.

The exertion put forth in training and rowing the long course (four miles and a half) in the University boat-race, is undoubtedly so excessive a strain, that no one with the least physical defect can expect to undergo it without serious injury. To medical men there is no reason to repeat the statement that excitement and over-exertion are particularly like to injure the weakly or the young, whose frames are not fully developed.

Rowing at the rate of forty strokes a minute for twenty minutes undoubtedly demands a great effort, and, coupled with the excitement naturally produced by an earnest desire to win, and with the effort to respond to the enthusiastic shouts of friends crowding the banks of the river, imposes the greatest strain on the organs within the chest as well as on the brain. Dilatation of the cavities of the heart, or injury to the valves or great vessels, as well as congestion of the lungs, and rupture of the air-cells, are by no means to be pronounced improbable in such a state of the circulation and respiration as must be present. That such effects are not more frequently experienced may be fairly attributed to the sound physical powers of the competitors. These are generally well formed and robust young men, who recover their natural tone in the steady row home. Should, however, a person with organic disease, or with mere defect, engage in such a contest, it is easy to understand that irreparable damage might result. Besides this, the occurrence of any of the various forms of hernia might easily be brought about, to say nothing of a temporary state of exhaustion, and the whole domain of minor injuries.

It is a well-known fact that the distance is generally rowed in less time during training than in the actual race. This is the case in almost all matches, so that the mere exertion, without the excitement, would seem to be a far less potent cause of injury.

We remember more than one race in which the competitors have manifestly suffered from extreme exhaustion. In one case that came under our notice, a well-known champion oarsman—the winner of Dogget's coat and badge—was both blind and deaf when he passed the goal, and he never recovered his hearing. Another winner so severely strained the muscles of his leg that but for the prompt assistance of a Surgeon he might have been permanently crippled.

Yet the possibility of some injury may be said to be characteristic of all our British sport. The national games have all a certain element of danger which seems to render them more attractive to the young and high-spirited. Running, jumping, cricketing, swimming, hunting, and boating—in fact, all athletic exercises or sports are attended with more or less risk. Yet feats of strength, agility, and endurance are all popular, and we hope may continue to be so. These feats, if used and not abused, tend to develop the courage and strength of our youth, and add to all the qualities which have made Englishmen pre-eminent from

the arctic circles to the equator. To those with health and strength athletics may be very beneficial. It is to those who are generally feeble, or who suffer from some defect, that they should be forbidden. Let all who doubt consult their medical attendant, and act on the judicious advice they will in this way receive.

CAPITAL PUNISHMENT.

The statistics of convictions, sentences, and executions for the last thirty-three years, recently published, afford the most forcible practical proof that the punishment of death is becoming yearly more and more distasteful to civilized people. In the 33 years, 4554 persons received sentence of death, of which only 688 were for murder, the remaining being under the old statutes, which awarded death as the punishment for lesser crimes. In 1862 the last instance of sentence to death for a minor offence occurred. Since then, the figures go to prove that the death-sentence was little more than an empty threat, the number of actual executions being very small in proportion to the sentences. In 1865 only 7 convicts suffered execution out of 20 convictions. In 1833, 931 persons were sentenced, and but 33 executed; in 1834, 480 were sentenced, and 34 executed; in 1844, 57 were sentenced, and 16 executed; and in 1854 only 5 persons were executed out of a total of 49 sentenced to death. The conclusion derivable from these figures is that, in the years quoted, only one-seventeenth of the sentences passed were actually carried out. It is perfectly evident that the sense of humane and thoughtful men is against the death punishment, and that the feeling of those to whom the exercise of the prerogative of mercy is confided shrinks from the responsibility. No one can doubt, at all events, that the present "halting between two opinions" is contrary to the dignity of inflexible justice, and only calculated to weaken the force of the sentences of the law. We ought either to have the capital sentence and the certain punishment of death, or else some punishment more consonant with humanity.

DR. LIVINGSTONE.

During the week there have been reports tending to keep alive the hope that this intrepid medical missionary may yet be alive. We regret, however, that a gentleman who left Zanzibar on the 10th of September, not only has nothing to say in support of this hope, but states that he and Dr. Kirk fully believe that Livingstone has perished.

THE LATE SIR JAMES SOUTH, F.R.S.

This highly distinguished gentleman and astronomer, who was also a member of our profession, has died at an advanced age, having been born in 1785. His father was a chemist and druggist in the borough, but the son, James, entered the Medical Profession proper, and, having fulfilled the curriculum, became a Member of the London College of Surgeons. He then commenced practice in Southwark, filling up the leisure hours, which most young practitioners experience, with the study of astronomy. In 1822-3 he joined Sir John Herschel in the labour of compiling a catalogue of 380 double stars. He was one of the founders of the Royal Astronomical Society, over which he for some time presided. In 1830 he was knighted, in recognition of his contributions to astronomy.

He established the far-famed Observatory at Campden Hill, Kensington, where he has resided for many years past, and where his seven-foot transit instrument, as well as others, still remain. A description of some of his instruments, and an account of some of his most valuable observations, may be found in the "Philosophical Transactions" for 1825. Besides his knighthood, his services in astronomical science obtained for him a pension of £300 a-year from the Civil List, which he has for some years enjoyed. Sir James was a good example of what may be achieved by a member of our Profession whose studies have awakened a genuine love for science. Would there were more such!

COUNTY WORKHOUSES.

The inspection of the London workhouses, undertaken by some of our contemporaries, has been cordially approved by the community, and the extension of a similar investigation into the country workhouses has accordingly been undertaken. At present, only those easily accessible to London have been visited, but they have revealed abuses which are as shocking as they are common.

As a general rule guardians have defended all the evils that have been denounced. In the case of the Farnham Workhouse, however, the iniquitous state of which has been made public, Mr. Thomas Wightman, a guardian, has written to the *Times* a letter so important that we copy the following passages:—

"Scandalous as the facts referred to appear, others of a more shocking nature might have been introduced into the picture to render it still more revolting.

"The visitors' book may record no indignant protest, but not only protests but efforts have been made by some of the guardians to remedy the scandal; their influence, however, has never been equal to that of the Poor-law inspector, much less of the Poor-law Board. 'The wards are clean, and everything very satisfactory, and the management of the guardians admirable.' Yes, sir, the guardians have been well instructed in and well carry out the present Poor-law system, which amounts to this—that they guard the doors of the workhouse with the most determined vigilance against the poor, the sick, and the infirm. If such unfortunates will enter they must be branded with disgrace, made very miserable, must be made to eat the bread of affliction, and drink the water of affliction, until they disappear.

"It is no part of a guardian's duty to see that the poor, who are willing to work but cannot get work, shall be fed, that the indigent sick shall be well cared for, and that the aged, when past work, shall be honourably provided for.

"This system, when exposed, as at Farnham, looks very scandalous, but, depend upon it, sir, most other workhouses are like it."

It should be stated, that in consequence of the revelations to which we have alluded, an official enquiry is about to take place. It is hoped that the enquiry will be complete, and that no attempt will be made to hush up the scandal.

THE PUBLIC HEALTH.

The very low temperature that prevailed at the beginning of the month, caused a considerable increase in the mortality from the diseases of the respiratory organs. Diarrhœa has declined, but scarlatina has prevailed in Liverpool, Birmingham, and Manchester. The mortality of London in the last week, registered an increase, the deaths being 52 above the average corrected for increase of population. The number of deaths last week was 1332, as against 1233 for the week ending October 12. Diarrhœa for the last five weeks has caused the deaths of 114, 108, 78, 59, and 37 persons respectively. Two children, aged six months and three years, died last week of "infantile cholera," and "choleraic diarrhœa." Zymotic diseases generally, have been less fatal. During the week 2941 deaths were registered in London and in 12 other large

towns of the United Kingdom. The annual rate of mortality was 25 per 1000 persons living. The annual rate of mortality was 23 per 1000 in London, 21 in Edinburgh, and 19 in Dublin; 26 in Bristol; 24 in Birmingham; 31 in Liverpool; 31 in Manchester; 30 in Salford; 27 in Sheffield; 28 in Leeds; 27 in Hull; 29 in Newcastle-upon-Tyne; and 28 in Glasgow.

HEALTH OF THE NAVY.

A BLUE book has been issued on this subject. It contains, besides the usual mass of statistics, reports on the outbreak of yellow-fever at Bermuda and Nassau, in 1864. Facts are given, from which it is concluded that the disease is contagious, and we are told, amongst other things, that medical men, nurses, laundresses, were all great sufferers. On board H.M. ship *Terror*, 37 deaths occurred. The sanitary condition of the Navy, generally, is reported to have been satisfactory. There was a trifling increase in the invaliding, and when all deductions are made, there would also appear to be a slight increase in the death-rate of the service.

HENRY TYRRELL, F.R.C.S.I., has been elected Surgeon to the Maynooth College, in room of the late Andrew Ellis, F.R.C.S.I.; Dr. J. S. Hughes, Senior Physician to the Mater Misericordiæ Hospital, was appointed Consulting Physician to the College.

THE PRICE OF MEAT.

THE fact that good beef and mutton is about half the price in the Northern Counties that it fetches in London, is exciting a good deal of discussion. That meat readily bought in the markets for 7d. per lb. should not be obtainable in the shops under 1s. or 1s. 2d., implies something radically wrong. Who are the gainers? The public are the losers. If the butchers cannot be brought to reason, the best resource seems to us to be the establishment of open markets in the suburbs. There is ample room for at least half-a-dozen good markets in the metropolitan districts. In some localities no market is to be found for miles. In small continental towns we constantly meet with these blessings for the poorer and middle classes—good open markets. Why should not the several districts of the metropolis be equally well provided? The inhabitants who would resort to them would be at least tenfold as numerous as the customers of continental towns. Is it possible then that they could be unremunerative? We throw out the hint to promoters of Companies Limited. Here is a fair field for the exercise of their energies.

DISEASED MEAT.

DR. LETHEBY'S returns for the last fortnight represent the sanitary condition of the city as satisfactory, the deaths being below the average of the ten preceding years. During the fortnight no less than 7644 pounds, or nearly three tons, of meat were condemned and destroyed as unfit for human food. The greater proportion of this appears to have been pork, of which 159 pigs were seized. Nearly 4000 pounds of meat were diseased, and over 3000 pounds in a state of putridity. It seems evident that the seizure of diseased meat, though a valuable protection to the consumer, is of little avail as a deterrent, for the butcher can perfectly easily afford to lose the small sum he pays, as an occasional fine, and for which he is reimbursed tenfold by the enormous profits which he derives from the diseased meat traffic. Why is it that the public journals do not afford the protection which their readers have the right to expect, by bringing forward into the light the names of persons engaged in this nefarious trade, and at present secured by the secrecy in which their detection and punishment is concealed?

YELLOW FEVER.

THE latest advices state that the deaths at New Orleans on the 5th instant numbered 60; on the 6th, 49; on the 7th, 59; on the 8th, 64. At Mobile, 4 on the 6th, 4 on the 7th, and 6 on the 8th and on the 9th. An order in council has been issued requiring that vessels coming from certain districts shall, from Saturday last (26th), come to anchor at such place as may be appointed, for having the state of health of those on board ascertained before entering any port of the United Kingdom.

The *Tasmanian* was only detained a short time.

THE OYSTER FAMINE.

UNTIL lately we have been accustomed every first day of August to see in all parts of London curious little oyster-shell grottos, built by the side of some wall, or under the shadow of some church, and, at eventide, lit up with a piece of candle which glimmered faintly through their small openings, and to encounter the resolute urchins to whom they belonged, holding out an empty shell for a small gratuity from the passers-by; a very simple and harmless way, as it appeared to us, of inaugurating the return of the oyster season. For months afterwards might be seen the street-stalls heaped up with

"Those shapeless somethings in a dish,"

the vendors with their strong knives wrenching open the firmly-closed shells, and the buyers, after applying the pepper and vinegar which stood by, sucking the delicious mouthful from its hollow pearly bed. Then there were the clean tubs at the fishmongers, filled with selected natives, whose diameter varied not the eighth of an inch, and which were prepared, by previous feeding, for the delicate palate of the "upper ten thousand." All this we have been accustomed to; but without thinking of it, and to our utter astonishment now they have in the shortest time become incidents of the past. There are no oyster-shell grottos nor oyster-stalls now; and if the fishmongers still sell the natives, they demand for them, such is their scarcity, from two to three shillings a dozen. It is not beyond our province to inquire how this has come to pass. We cannot feel indifferent when anything which has hitherto contributed largely to the sustenance of the human family, and been a source of income to thousands, so suddenly fails. The fact is, we have recklessly (French and English together) cleared the oysters from the sea and devoured them, without a thought about the future. It appears that as late as 1864, in London alone, 700,000,000 oysters were devoured, and more than as many in the provinces; while now, comparatively speaking, there are none. Some time ago on the Irish coast there was a bed so prolific that it employed 2000 fishermen, and produced £1000 per week during the season, whereas, now, it yields scarcely £300 a-year.

Attention has lately been aroused, and attempts are being made to remedy the disaster by oyster-cultivation; but it will necessarily take years to produce a supply at all equal to the consumption of a country like our own.

THE DUST BIN NUISANCE.

THERE is a probability that next year Londoners will be, to some extent, relieved from a great nuisance. At present one can scarcely walk down the most fashionable streets at any hour of the day without suffering from the filthy particles which infest the air where the dust-man is emptying the refuse from the houses into his cart. Under the new Traffic Act, after the 1st of January, the removal of dust, ashes, or refuse of any kind, between ten A.M. and seven P.M., will be interdicted. We hope the police will stringently enforce this regulation.

CORRECTORS OF THE PRESS.

AT a recent meeting of the London Association of Correctors of the Press, Mr. Charles Dickens took the chair, and spoke most kindly and considerately in support of the claim of the readers to increased remuneration. We all know well enough the value of a good reader, and the London readers have a character for accuracy and attention which they keep up most marvellously. Any one engaged on the daily or weekly London press will acknowledge the value of their services.

Moreover, we congratulate them on making their appeal so distinct from anything like a strike. They see the evil that strikes have already caused in London printing-offices, and have adopted a course of action at once dignified and liberal. Not only did they repudiate the idea of strikes, but invited readers not connected with the association to attend, and listened to their suggestions. Such conduct alone ought to raise them in the estimation of their employers, as it will in that of the public. They have already achieved a moral success.

UNIVERSITY OF EDINBURGH.

THE honorary degree of LL.D. is to be conferred on the Right Hon. B. Disraeli, at his visit to the northern capital. The same distinction is also to be conferred upon the Right Hon. Robert Lowe, who is to open the session of the Philosophical Institution on Friday next. This compliment is not without precedent in University annals, and is a tribute to the talents of the Chancellor of Exchequer without political significance.

EXCISION OF THE SCAPULA.

ON the 19th, Sir William Fergusson performed an operation at King's College Hospital, as brilliant in its execution as it was formidable in its character. The patient was a healthy man, suffering from a large tumour of the scapula, involving the upper part of the humerus and projecting into the axilla. The entire of the scapula, and upper extremity, with a part of the clavicle, were removed; and, considering the locality of the operation, the hæmorrhage was remarkably small. We regret to learn, however, that the patient has since sunk, and died on the Monday following, a result which will not excite surprise, if the gravity of the shock be estimated by the magnitude of the operative procedure.

THE DISMEMBERMENT OF PHARMACY FROM PHYSIC.

THE erudite and succinct sketch, which we publish from the pen of Mr. Donovan in another part of our issue, will be read with much interest. The author gives us the results of his prolonged antiquarian labours on the subject, and sheds an unexpected light on the ancient history of the pharmaceutical profession. Mr. Donovan is proud in being the last member of the time-honoured profession of apothecary, which has most unfortunately been lost in the struggle for what is now known as general medical practice.

UNFOUNDED CHARGE AGAINST A MEDICAL MAN.

AN enquiry has been held before a coroner's court respecting the death of a prematurely born child, which involved a serious charge against Dr. Macnaughton, of Wigton. The mother seems to have imagined that his treatment brought on premature delivery. The evidence all went to show that there was no foundation for such an idea, and the woman herself was proved to have said that he hurt her, although he was sitting quietly on the other side of the room. We are glad to observe that Dr. Elliot and Mr. Brown, of Carlisle, both spoke in the most positive manner as to the correctness of Dr. Macnaughton's practice, and that Dr. Tiffen, of Wigton, equally supported his professional neighbour in this severe trial. Nothing can be more terrible to an honourable man than such a charge, and nothing but the firm support of his professional brethren can carry him through the ordeal.

There is only one point of general interest to the profession. The accused seems to have been the medium of conveying pecuniary assistance to the unfortunate woman. However noble the intention may be, this case goes to show that such charity—or rather suffering oneself to be the instrument of such charity—is rather imprudent. Those who desire to assist a poor woman in her extremity should be willing to do it directly, and if, as no doubt is frequently the case, one whose duty it is to succour should desire to remain unseen in doing so, he ought not to expect his medical friends—at any rate after such a case as this—to be the purveyors of his assistance.

We all know well enough how patients may deceive themselves, even when malice is not suspected, or extortion aimed at. We are, therefore, quite justified in protecting ourselves, as far as possible, from ridiculously unfounded but injurious charges like this.

DISPENSING CHEMISTS IN DUBLIN.

WE understand that the attention of the Council of the Apothecaries' Company of Ireland having been called to the fact that prescriptions were systematically dispensed in the establishments of chemists not possessing the requisite qualification, an enquiry was instituted, which resulted in the discovery that the practice was very common. The Council, in the exercise of its powers, required from these dispensing chemists a guarantee that the system should not continue, and received from almost all the offenders an agreement to that effect. We understand, however, that one firm has declined to enter into such a guarantee, and maintains that, as they have retained the services of a Licentiate Apothecary, they are entitled, under his name, to dispense prescriptions. The question is, under these circumstances, likely to come for decision before the law courts.

BRITISH PHARMACEUTICAL CONFERENCE.

(Continued from page 393).

SECOND SITTING.—WEDNESDAY, SEPTEMBER 4.

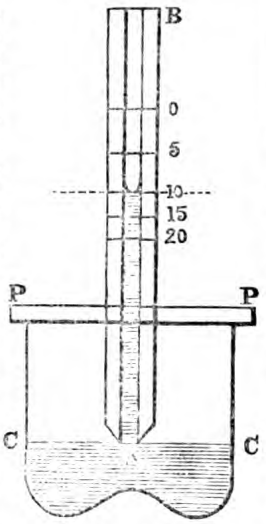
THE Conference met at 10.30 A.M.

The Committee appointed yesterday, on the subject of excise interference, brought up a report recommending that a

memorial on the subject should be presented to the Council of the Pharmaceutical Society, praying "that the Council of the Pharmaceutical Society will use its best efforts to induce the Board of Inland Revenue to reduce all legislative enactments bearing upon the subject to the simplest possible code, and to adopt any other measures which may appear to them desirable to place the relations of the excise towards pharmacy in a clearer light."

ON A NEW ALCOHOLOMETER.—BY R. REYNOLDS, F.C.S.

The author stated that he had met with this little instrument in the Paris Exposition of the present year. It is the invention of MM. Musculus, Valson, et Cie, and is named by them the Liquomètre. It depends essentially upon capillary action, differing thus from all previous forms of alcoholometer, which are based upon density for their principle, and which are manifestly inapplicable in many cases, such as light wines, on account of the interference of extractive and astringent matter, tartar, &c.



The construction of the instrument is so simple as to be shown by a glance at the annexed woodcut. A capillary tube, A B, about four inches long, and divided into degrees, is the essential part of the liquomètre. This is supported by a little wooden bridge, P P, that will rest upon an ordinary tumbler-glass or upon the narrower trial-glass supplied with the instrument. The tube slides up and down, at pleasure, through a hole in the centre of the bridge.

Certain precautions are needful to the accurate use of the liquomètre, the nature of which will be indicated by the following directions:—Let the temperature of the liquid to be tested be as near 15° Centigrade (59° Fahr.) as may be, as shown by a small thermometer that accompanies the outfit. Fill three-fourths of the trial-glass with this liquid, hold the capillary tube by its upper extremity, and push it through the aperture in the bridge, so far that its extremity shall dip to the extent of about 0·1 inch below the surface of the liquid. Apply the mouth to B, and draw a little into the mouth so as to moisten the interior of the tube. Now, adjust the extremity, A, with great exactitude, so as to touch the surface only of the liquid. By another and more gentle aspiration, the liquid is again drawn up nearly to B, and its descent is watched. The point at which the column remains gives the alcoholic degree.

The inventors state that that the readings of the liquomètre will always be found rather higher than the results given by the old method of distillation, on account of an inevitable loss of alcohol attending the latter; thence they give a table for corrections, which enables the results of the two methods to be collated.

The graduation of the tubes only provides for the registration of 20 per cent. alcohol. In the case of liquors containing more than this, one part is diluted in the graduated trial-glass with one or with three parts of distilled water, and the reading is multiplied by two or by four, as the case may be.

Temperature necessarily affects the indications of the liquomètre, and as has already been stated, it is desirable to operate with the liquid at a temperature of 15° C., which may usually be done without any loss of time.

MM. Musculus, Valson, et Cie do not claim for their little invention the power of giving the strength of saccharine wines or viscid liquors, such as beer, although they hold out hopes of soon producing an instrument that will accomplish these objects also. For pure alcoholic liquors and for most French wines, the inventors distinctly claim a preference for their method over all others, on the ground of readiness and exactitude.

The instrument gave correct results with water, claret, whiskey, and diluted alcohol of known strength, but it must be confessed that the hydrometer supplied to the pharmaceutist a more ready means of ascertaining the strength of purely alcoholic fluids. Then, for tinctures, many of which contained viscid matters in varying quantities, the instrument was inapplicable. The present utility of the liquomètre appeared to apply to light wines chiefly. Possibly fixed oils would give results of some value, but the important point seemed to be that the principle of capillary action should not be lost sight of by practical physicists, now that a great degree of success had attended its introduction in a particular direction.

Mr. W. W. STODDART read a paper "On the Use of the Microscope, and its Crystallographic Application."

NOTES ON TINCTURA OPII AND LIQ. OPII SEDATIVUS.—BY MR. ALFRED SOUTHALL, BIRMINGHAM.

In continuation of a subject which was brought forward at the last meeting of the Conference—viz., the analysis of various specimens of ordinary commercial opium; in order, further, to show the extremely uncertain medicinal value of different samples, I have since examined a variety of specimens of tincture of opium, some of which have been kindly forwarded to me by Dr. Attfield. These specimens were, I believe, procured indiscriminately from the establishments of various pharmaceutists, and show a variation in strength which may well rather alarm the prescriber for the welfare of his patient.

Taking the standard of strength required by the British Pharmacopœia, which states that 100 grains of opium should yield at least 6 to 8 per cent. of morphia, the consequent strength of tincture of opium, B. P., should be not less than 0·5 per cent. of morphia. Nine samples of tincture varied in strength from 0·2 to 0·7 per cent. of morphia. Good commercial opium, such as is commonly found in the English market (as our analysis last year showed), contains frequently as much as 10 to 13 per cent. of morphia; and the Pharmacopœia, laying no restriction upon a maximum yield of morphia, opens a wide door for a great diversity in the strength of its opium preparations, so that a tincture yielding from ½ to 1 per cent. of morphia is within the Pharmacopœia limits.

The letter which was lately addressed to the *Pharmaceutical Journal* by Mr. J. T. Miller, of Sheffield, on the value of the British Pharmacopœia tests for opium, is well worth perusal.

Although liq. opii sedativus is not officinal, yet this form of administering opium is scarcely less important than the tincture. It is, however, interesting to notice in the analysis of the eight samples, that the same wide diversity exists, varying from 0·5 to 1·5 per cent. of morphia.

Mr. HEATHFIELD remarked that there was no standard for the strength of liquor opii sedativus, since its inventor had at different times made statements which were inconsistent with one another.

Mr. SAVAGE wished to know how a chemist could tell what opium he might use.

Professor ATTFIELD replied that he should demand an analysis from the seller. The necessity for this had been established by the full proof that physical appearances would not indicate the strength of the drug.

Mr. BRADY thought that by drying and powdering the opium the most serious sources of discrepancy were eliminated.

Mr. YOUNG advocated the introduction of an opium with a standard percentage of morphia into the national Pharmacopœia.

Mr. BAILDON thought that the remedy lay in the substitution of its principal alkaloid, morphia, for a drug of such uncertain strength as opium.

Professor BARFORD agreed with the last speaker; and, as a member of the medical profession, he could state that the leading physicians of this country employed morphia almost exclusively for either internal administration or for subcutaneous injection. As a matter of economy, there could be no objection to the continuance of tincture of opium as an addition to liniments or other external applications.

ON THE ELECTRICAL RESISTANCES OF THE FIXED AND VOLATILE OF OILS.—BY T. T. P. BRUCE WARREN.

The want of an acknowledged and trustworthy means of recognizing the purity or condition of samples of oils has long been felt by pharmaceutists. No tests or system of tests at present used are free from objection. An inspection of the optical characters of the oils, whether fixed or volatile, will be sufficient to confirm the truth of this observation.

The polariscope has at best a very limited scope of application, whilst the determination of the refractive or dispersive qualities requires such precise adjustments that the suitability either of the one or the other, for the purposes of a technical test may be fairly questioned. The refractive power of the oils,

both fixed and volatile, has so small a variation, even between the two extremes of the scale here given, that the difference produced on the refractive power of any oil by the addition of a small quantity of another, would be barely perceptible. The objection against the measurement of the dispersive action as a means of expressing the value of an oil, is that the determination of the differences of indices of refraction for the extreme rays is at once tedious and unreliable ; the scale of dispersions offers, however, a much wider range of differences.

Although bromide and iodine exert on some of the essential oils chemically characteristic effects it does not appear certain to what extent the action may be modified by the addition of small quantities of other oils ; consequently the chemical phenomena, as well as a knowledge of their specific gravities and boiling-points, cannot be considered as offering any assistance to the detection of accidental or intentional impurities when existing in small quantities.

The process which I have to submit is one which has given considerable satisfaction in all the experiments which I have made, and was suggested by a discovery due to M. Rousseau, quoted by De la Rive, "that olive oil when mixed with one-hundredth part its volume of oil of poppies, increased the number of vibrations of a magnetic needle in a given time, when the same was included or made to form part of voltaic circuit." This isolated fact would be of service for the determination of the purity of olive oil, if oil of poppies were the only sophisticating ingredient.

I thought it useful to extend the observation to the effects produced by other oils when mixed with oil of olive, and to ascertain how far the process might be applied as a test for the commercial and chemical valuation of oils generally.

ON GLYCELÆUM, A PROPOSED BASIS FOR OINTMENTS.—BY T. B. GROVES, F.C.S.

Some years ago, when stirring together on my plate a mixture of mustard, sugar, vinegar, and olive oil, I observed a tendency towards combination, and on persevering with the process, I eventually obtained a semi-transparent paste of soft consistence, which, when mixed with a further proportion of vinegar, gave an elegant emulsion. I subsequently found that by modifying my method I could obtain this result very readily. Since then, I have, as occasion required, prepared a very useful salad paste, which, being composed of the simple materials common to all salad dressings, formed a kind of universal basis, and being destitute of vinegar, kept well for a length of time. It was made thus :—

Take of

Mustard	℥iij.
Syrup	℥j.
Olive oil	℥iij.

Mix the mustard and syrup in a mortar to a smooth paste, then add gradually, with constant trituration, the olive oil. When nicely made it forms a soft paste, which, after a few days' rest for the elimination of air-bubbles, becomes nearly transparent. When mixed, by gradual addition with vinegar and flavouring ingredients to taste, it forms, to my mind, an excellent and simple salad dressing. This is not strictly pharmaceutical, but it was out of this arose the idea of the subject of this paper—Glycelæum.

It of course soon occurred to me that other oils besides olive could be so emulsed, and that compounds so obtained might be made to serve the purposes of the surgeon or of the doctor—might be used to favour the assimilation of oil, or as dressings for wounds and such-like. Mustard was, of course, inadmissible for either purpose. I must here observe that if the ingredients for the salad mixture above referred to be made much thinner than in the recipe given, it will be impossible to mix them in a mortar by trituration, the same also if a much larger proportion of oil be used ; but combination may in either case readily be effected by stirring or rather "slicing" with a flexible spatula. The pressure of the pestle seems to squeeze out the oil from the emulsion as soon as formed. This is on a par with what I and doubtless others have remarked, viz.—that the common liniment containing vinegar, camphor, and turpentine, emulsed with yolk of egg, is more readily mixed by simple agitation in a bottle than by working it in a mortar. The yolk must, of course, be thoroughly broken up, in order to destroy its structure and render it miscible with water.

To return from my digression—on making trial of the usual gummy substances, such as acacia and tragacanth, I found that this class of compound could not be formed by their aid ; emulsions of the ordinary kind might be made, but not *paste* emulsions. The natural thing to do in such case was to separate, in a pure form, the emulsive principle contained in the mustard seed, and go to work with it ; but, before doing so, I tried the finely powdered farina of other oil-seeds, such as linseed and almond, and was gratified to find that either will answer the purpose as well as mustard. I have no doubt that all the oil-seeds, when deprived of their oil by pressure, and then reduced to powder, answer equally well, though perhaps not all with equal power. The meal of decorticated pressed sweet almonds is that which I prefer, and which I have used. Messrs. Barron, Harvey, and Co., who express a good deal of almond oil, were kind enough to prepare for me a cake of this article. When powdered, it should be passed through a fine silk sieve, cypress or lawn; it refuses altogether to go through a fine wire sieve.

To prepare glycelæum, then :—

Take of

Almond meal	½ oz.
Glycerine	1 „
Olive oil	3 „

Mix s. a. It may be effected in a mortar in the ordinary way, up to nearly the end of the operation ; but it is better, I think, to use the spatula and "slice" in the last addition of oil. It will then form a soft, semi-gelatinous paste, which, when mixed gradually with water or a watery fluid, forms readily an emulsion. The glycerine it contains being protected by the oil, it does not quickly deliquesce, though when exposed to the air for some time it does soften somewhat. It is of course unaffected by the ordinary temperatures of the body ; if it were otherwise, its softness would be an objection to its use ; as it is, it leaves plenty of room for powdery admixtures of every kind.

This form may be varied in many ways, viz.—the glycerine may be either pure or diluted, and may or may not in either case contain medicinal substances in solution. The olive oil may be substituted by another oil or by a mixture of oils, or, again, by a balsam, an essential oil or a hydrocarbon. All these may or may not contain other substances in solution. It is only essential to remember that the body in the first place must not precipitate emulsine, in the second place must be a fluid. I have in several ways attempted to emulse lard. I have melted it and succeeded perfectly, so long as it remained fluid; but, if stirred after solidification, the emulsion was at once "inverted," or as Mr. Proctor styles it, converted into a "negative" emulsion, *i.e.*, the glycerine is emulsed in the fat, and not the fat in the glycerine.

The advantages I attribute to glycelæum as compared with ointments and with plasma, I imagine to be these :—Ointments are greasy, prone to rancidity, do not "touch," in a strict sense, watery surfaces, and are not easily removed from the surfaces to which they become attached ; on the other hand they are cheap, they are fatty, and they are repellent of moisture.

The chief objection to plasma, of which I know little, and therefore shall say little, is that it is dear. I have heard that in use it is troublesome, in consequence of its proneness to deliquescence. My other objection may seem fanciful, but it is a fact that I cannot look with favour on a dressing for wounds that does not contain some fatty substance. Fats have been used for that purpose from the very earliest ages. The use of oil is mentioned and recommended in the Bible, and fat in some form or other is still universally employed by men civilised or savage, in the dressing of external wounds. Its great and overwhelming advantage is its cleanness in use ; it is readily removed by sponging ; it "touches" completely the parts to which it is applied.

Glycelæum is cheap ; it is easily sponged off ; it "touches" wet surfaces, and combines with them to form an emulsion, resembling somewhat in character the pus which nature pours out for the defence of raw surfaces. It does not deliquesce to a disagreeable extent, nor does it soften by the heat of the diseased parts. It is capable, as I have indicated, of an immense amount of variation. I have never observed it to become mouldy or rancid from keeping. Glycelæum has been little tried as a remedy ; I have had difficulty in finding persons to make trial of it. Dr. Tilbury Fox has, however, at Mr. D. Hanbury's suggestion, made some experiments with it, and reports "that he likes it very much ; that it is a capital thing where it is a desideratum to get hardened parts into a more 'supple' condition." Although I can bring but one testimony in its favour, it must be allowed to be a first-rate one.

Still less trial has been made of glycelæum as a vehicle for the administration of oils and balsams, though it would not be difficult to find stomachs that support with difficulty castor and

cod-liver oils, and balsam of copaiba. As "oiled" melted butter is known to upset a weak stomach, whilst well-made, *i. e.*, well-emulsed melted butter does not, it might be inferred that an emulsed oil would in some case agree with the stomach when the plain oil would not. I am convinced of this, that the glycelæum copaibæ, stiffened with powdered cubeb, would form a more elegant and more supportable electuary than the nasty and imperfectly mixed mass one commonly meets with.

The uses of these bodies in the cosmetic art will not, I presume be lost sight of.

I have already alluded to the fact, that it is to the emulsine contained in these oil-seeds we must attribute the extraordinary emulsive power of these vegetable powders. (Certainly no organic principle has been more consistently named than it). This I have proved experimentally, by preparing some of the substance, and trying it in its pure state. I found that five grains dissolved in one drachm of water would emulse into a jelly four drachms of olive oil (using the spatula, not the pestle). To prepare the emulsine I digested for a few hours powdered almond meal with tepid water, filtered, added to three measures of the filtrate, five measures of rectified spirit, collected the precipitate and dried it at a temperature not exceeding 100°.

In conclusion, I will say a few words about the dietetic use of emulsine. I wonder it has not been pressed into the service of the infants. It is really a vegetable albumen; like it, it is coagulable by heat, and contains a large proportion of nitrogen in a form available for the production of fibrin for the blood and muscles. It is contained, it is said, in almonds to the extent of 30 per cent., and is easily extracted therefrom. A tepid infusion of the meal, filtered, sweetened, and then evaporated at a temperature not exceeding 100° to a syrup, would not be unlikely to be a useful ailmentary preparation.

Gleanings.

INVALID PRISONS.—The principal establishments for the accommodation of invalid convicts in England are situated at Woking and Broadmoor, the latter being specially appropriated to lunatic convicts. During the past year 444 persons were received at Woking from Government convict prisons, and 20 from county and borough prisons, and a total of 946 were treated during the year, 44 deaths having occurred. These prisoners are employed as shoemakers, tailors, washers, bookbinders, knitters, and oakum pickers, and the sum realised from this work during the year amounted collectively to £1130. A certain number are also employed on a farm connected with this establishment, and a total sum of £1936 was earned by invalids employed as carpenters, painters, smiths, &c. This prison costs an annual sum of £24,379 net expenditure. Many of the convicts are bedridden, most of them suffer from old diseases of a very serious and incurable nature, and it has been, and still is, the custom to remove prisoners suffering from slight ailments to the prison at Dartmoor. The Broadmoor asylum is visited constantly by the governor of Woking prison, is under the immediate charge of a chief warder, and contains throughout the year an average daily list of 88 prisoners. A sum of £2500 was earned by convicts here during the past year, which was gained chiefly in labour connected with a new wing for female convicts now in course of erection. During 1866, 126 prisoners were discharged on licence, and of these 44 were assisted by the Prisoners' Aid Society in London, and 15 by provincial societies.—*Times.*

A RECENT COURT-MARTIAL.—Courts-martial on medical officers appear to have been rather frequent lately in India. Since the trial to which we referred on Saturday took place, Mr. Fearon, a staff-assistant surgeon, doing duty with a detachment of the 93rd Highlanders, has been tried for being drunk, and having in consequence neglected for four hours a patient who was dangerously ill, and who at the end of that time died. The assistant-surgeon was also charged with accelerating the death of his patient—a brother officer, Ensign McKechnie—by giving orders that no food should be administered to the sick man until he (the doctor) came to administer it in person. Of this portion of the charge, however, and of that of drunkenness, Mr. Fearon was acquitted, but was found guilty of neglect of duty, and sentenced to be severely reprimanded. Sir William Mansfield, while approving the finding of the court, thought the sentence "very lenient," an opinion in which most people will probably concur, and expressed his hope that the "awful lesson" thus read to Mr. Fearon would not be lost on him, and that it would be "carefully applied by the young medical officers of the army, amidst the social temptations which, of all members of the community, they are most bound to resist."—*Pall-Mall Gazette.*

Medical News.

WE are requested to state that the case of cholera alluded to in our last issue as having been attended by Mr. H. G. Croly, was not under his care, the patient having resided in the neighbourhood of Rathfarnham, under the care of Dr. Croly, Medical-Officer of the district.

CHARLES H. ROBINSON, M.R.C.S.I., L.K.Q.C.P.I., L.M.C.P., has been appointed Demonstrator of Anatomy to the Ledwich School of Medicine.

UNIVERSITY OF CAMBRIDGE, OCT. 24.—The electoral roll of the University, which includes most officers of the University and the resident members of the Senate, has just been issued, and contains 285 names. The Board of Medical Studies have issued, for the information of medical students, the subjoined list of hospitals and medical schools at present recognised by them; and also the resolution adopted for defining what shall be deemed sufficient evidence of medical study out of the University. The University of Oxford.—London Medical Schools and Hospitals—The medical schools of Charing-cross, Guy's, King's College, London; Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas's, University College, Westminster. Provincial Medical Schools.—Birmingham, Queen's College, Sydenham College; Bristol, Hull, Leeds; Liverpool, Royal Infirmary; Manchester, Royal School; Newcastle-upon-Tyne, College; Sheffield, School. Provincial Hospitals.—Bath, United Hospital; Bedford; Birmingham, General, and Queen's Hospitals; Brighton, Sussex County Hospital; Bristol, Royal Infirmary, and General Hospital; Cambridge, Addenbrooke's Hospital; Canterbury, Hospital; Derby, Infirmary; Exeter, Hospital; Glocester, Infirmary; Hull, Infirmary; Leeds, General Infirmary; Leicester, Infirmary; Liverpool, the Infirmary, the Northern Hospital, the Southern Hospital; Manchester, Royal Infirmary; Newcastle-upon-Tyne, Infirmary; Northampton, General Infirmary; Norwich, Hospital; Nottingham, Hospital; Oxford, Radcliffe Infirmary; Salisbury, Infirmary; Sheffield, Infirmary; Salop Infirmary; Stafford, Infirmary; Winchester, Hospital; Worcester, Infirmary. Scotch Medical Schools.—Anderson's University; Aberdeen; Surgeon's-hall, Edinburgh; University of Edinburgh; University of Glasgow. Hospitals.—Aberdeen, Infirmary; Dundee, Infirmary; Edinburgh, Infirmary; Glasgow, Infirmary; Greenock, Hospital and Infirmary; Paisley, Infirmary. Irish Medical Schools.—Carmichael School, Catholic University, College of Surgeons; Ledwich School of Anatomy; Queen's Colleges, Belfast, Cork, and Galway; Trinity College, Dublin. Hospitals.—Adelaide; Belfast, General Hospital; City of Dublin Hospital; Cork, North and South Charitable Infirmary; Dr. Steeven's Hospital; Galway, Infirmary; Meath Hospital; Richmond, Whitworth and Hardwicke Hospital; Sir Patrick Dun's; St. Vincent's. The Board has also resolved, that for the time claimed by the student as passed in medical study out of the University, evidence shall be required of attendance on lectures in one of the above named medical schools, or on the practice in one of the above named hospitals.

NOTICES TO CORRESPONDENTS.

Several Communications and Letters are unavoidably held over.

Dr. Atkinson.—The grievance you speak of, should be withstood on the first pressure.

J. Alton Hatchard is thanked for the information he has so kindly furnished, and of which we shall not fail to make use.

Dr. Mark Harte, Plymouth.—The back numbers of the Journal shall be sent you at once.

M. E. T.—We shall not fail to notice it, when the time arrives.

Uva.—We refer him to the first number of "Wine Reports," which appeared in this Journal of August 28th last.

Esculapius.—We cannot accept your proposition.

X.—We can form no definite opinion as to the merits of the case.

Pacificator.—We advise you not to interfere.

B. O.—Your only safety is in silence.

F.R.C.S.—Each of the works mentioned is published by Messrs. Churchill and Sons. We have not the least doubt that the one in parts will be completed in due course.

Cork.—The poetical contributions, though clever and amusing, are unsuited to our columns, and are therefore returned with thanks to the author.

Original Communications.

THE NATURE OF THE CHOLERA-POISON.

By ARTHUR ERNEST SANSOM, M.D.Lond., M.R.C.P.

MODERN research and experience seem to point to the conclusion that nearly all the plagues and pestilences which afflict the human body, may be traced to physical extra-corporeal causes. In the case of cholera, the history of which shows it to follow the tracks of human intercourse, and which a large mass of evidence declares to be communicable by physical intermedia, and especially to be induced by the drinking of contaminated water, the existence of a transmissible poison seems, *à priori*, most probable. That this conclusion has forced itself upon the minds of many profound thinkers, is evident from the fact that it is almost invariably classed under the head of "zymotic" diseases—diseases induced by an infecting poison. I give a most unqualified adhesion to this view myself; and I was somewhat surprised to find that the writer on "Cholera Theories," in the MEDICAL PRESS AND CIRCULAR of September 4, adverts to my views as to the existence of a material cholera-poison as an unwarranted assumption. It is far from my purpose to complain of those whose conclusions are adverse to my own; I think there has been too much of acrimony already shewn in discussions concerning cholera, but I trust that, by calm reasoning, I may be able to win over some of your readers, even if I do not succeed in convincing my critic.

Those who grant that cholera is contagious, or infectious, or a zymotic disease, are with me at the outset, for contagion implies a contagium, infection a *materies morbi* to infect, zymosis a zyme. I am aware that views have been expressed that cholera is not a contagious disease; still it cannot be denied that the majority are of a contrary opinion. With much eccentric pertinacity, one of our countrymen has enunciated this doctrine in Paris, but, as I shall presently shew, he seems to me to commit that grave error in logic, "non-distribution of the middle term." I cannot help being reminded of the first sentences in Butler's analogy, concerning those who have raised doubts concerning personal identity, "which, whosoever thinks it worth while, may see considered in the first dissertation at the end of this treatise."

To reduce the main question to the form for argument, I will thus state it.

PROPOSITION I.—*That the first cause of cholera is physical and extra-corporeal.*

It is, at first sight, impossible that the phenomena of cholera shall be produced by any process of natural nutrition. No combination of the natural forces of the body, except by the influence of some force from without, could produce such effects. We cannot help arriving, from universal experience, at such a conclusion. The exotic force must be physical, common experience shows that it is not psychical. Being physical, it may be in the nature of pure force or matter. Analogy might point to the possibility of the first—the phenomena of sunstroke or of lightning. The mind shrinks, however, from accepting the doctrine, that in cases of cholera seizure there are separate evolutions of an unknown force, which force manifests its effects on none others than its selected victims. Moreover, if we can show hereafter that the cause of cholera obeys the physical laws of matter, we prove, by the method of difference, that it is material, and not purely dynamic.

PROPOSITION II.—*That the first cause of cholera is a communicable poison.*

How is this proposition to be proved? By isolation and demonstration of the *materies morbi?* Not necessarily, for no one doubts the existence of odorous particles, which excite the sense of smell, nor of the air which he breathes, yet cannot see. To prove, therefore, this proposition, so far as any proposition in biology can be proved, it is not necessary to demonstrate to the eye the ultimate cause. We must employ the inductive method, and, as Herschell inferred from the perturbations of neighbouring celestial bodies, the existence of Uranus, or as Crookes deduced from an unusual occurrence in the prismatic spectrum, the presence of the then unknown Thallium, we may be able to exalt to the highest probability, the hypothesis of the existence of a poison which we, unlike the cultivators of the precise sciences, may not be able to demonstrate beyond all dispute.

Now, in the case of cholera, we have these facts, that it (the disease) has progressed by a definite march throughout the world—that importation of its victims from one part to another has transmitted also its morbid influence—and that the dejections from those suffering from it have given like morbid effects to certain lower animals. Moreover, to come from facts to opinions, the "vox populi" testifies to a physical something, as the foundation for the fear of cholera. When we hear of a cholera-contaminated ship touching our coasts, what, inevitably, does one expect? The terror of spread—a terror founded on a settled conviction attained from former tradition and experience. We have, besides, evidence of great probability that clothes, air, and water, contaminated by some derivatives from its victims, have produced in other individuals the disease. These circumstances, taken not singly but collectively, point with a very high degree of probability to the inference that the producing cause of cholera is material, and that it follows the ordinary laws which govern material particles.

But objectors state, "Cholera is not always communicable, therefore we affirm that it is not contagious nor infectious." By parity of reasoning they would assert that, because corn does not grow upon a certain soil, therefore it does not grow at all; that fungi do not spring up in a dry place, therefore their germs do not exist in the air round about us; and there is no disease, scarlatina, syphilis, nor variola, contagious nor infectious, though common observation convinces all of us to the contrary. Their premises do not justify their conclusion, but they help to justify another conclusion—viz., that the producing cause of cholera does not fulfil the usual conditions of an inorganic poison. They help us further on our path to the following:—

PROPOSITION III.—*That the poison of cholera is an organised germ.*

The first fact pointing to this conclusion is the tremendous potential energy of the producing cause of cholera. No inorganic body with which we are acquainted can produce such a train of symptoms. On the other hand, we know that the minutest portion of an organised substance, such, for example, as the virus of a serpent or the poison of glanders, will communicate to an animal body the definite phenomena of a fatal disease. So, also, in respect of small-pox, as Dr. Bence Jones says[1]—"If the minutest particle of a substance, a little dried albuminoid substance, in a peculiar state of action, on a lancet, or in the dust of the air, be put into the cellular tissue, or inhaled into the lungs, it passes into the blood, and, through it, to every texture." If probabilities show that the cholera germ is organised, there is still less necessity that its presence should be demonstrable to the eye. "The multiplication of bacteria and low animal and vegetable organisms," says Dr. Beale, "so very minute and transparent that they are scarcely visible under a power magnifying 3000 diameters, the subdivision of pus and mucus corpuscles which may be *seen* under the microscope, not to mention the wonderful powers residing in the infinitesimal amount of matter constituting the spermatozoon, are facts which at once destroy the validity of objections grounded upon the minuteness of the particles of living matter supposed to be the active agents."

There is, besides, a very remarkable circumstance, which lifts the effects of the organised poison above all similarity with those of the inorganic. An inorganic poison manifests

1 Lectures on Pathology, &c., p. 228.

its effects upon the body in and by its own destruction; it is organically changed or expelled from the organism. An organised poison, on the contrary, is multiplied in the body; instead of annihilation there is prolification; one germ becomes a thousand, capable of transmitting effects to a thousand individuals.

Here, then, is a series of undoubted facts. An extremely minute particle is absorbed by the body; it causes a perturbation of the body, which perturbation gives rise to the phenomena of a definite disease; and it is multiplied in the body, so as to communicate its effects to others. On these data is built up the doctrine of zymosis, which, I need scarcely say, is embraced by Dr. Farr, and by men of the highest eminence in scientific work. It must be understood, however, that zymosis is a term of relation when applied to disease. Though Liebig illustrated the action of a disease-producing germ with that of yeast in fermentation, he established an analogy and not an identity. The yeast-plant, when it finds in saccharine or starchy substances a suitable soil, and when it is in favourable conditions, grows and multiplies, and in its growth and multiplication causes the decomposition of the saccharine substance into alcohol, carbonic acid, and water. In like manner, the vinegar-plant, by its growth, changes alcohol into acetic acid. So in disease "as in fermentation, there is actual growth of a vegetable fungus, which in that growth modifies the physical character of the substance in which it grows; so in infectious diseases there is prolification of a morbid germ, which, occurring in an animal body, modifies the functions of that body—*first*, by the physical effects of its own presence; and, *secondly*, by the alteration which it induces of the fluids of the system."[1]

In case of variola we have (1) positive proofs of the communication to the body of an organised germ; (2) proofs of its effect upon the body evidenced by the phenomena of disease; (3) proofs of its multiplication in the body, by its products having all the properties of the original germ; (4) proofs of a radical alteration of the body, because, after the disease has run its course, there is an immunity from reinfection. Reasoning and experience, analysis and synthesis in such a case, point to but one conclusion, viz.—that the prime cause of variola is an organised germ. The following statement, which is made by Dr. Bence Jones, though it does not rise to the level of a physiological truth, approaches it with the highest degree of certainty. "The poisons of scarlet fever, of measles, of typhus, though less tangible, are not less substantial than the small-pox ferment."[2]

From the foregoing premises, we arrive at one positive conclusion, that there are some diseases which afflict the human race, the causes of which are organised materials capable of multiplication within the living body.

If we trace the natural history of these organised materials, we find that some are derived from the animal world, and some from the vegetable.

I.—*Diseases which arise from the absorption of animal poisons.*

We have quoted the example of variola to arrive at this stage of our argument. To this we add, as a matter of common experience, the vaccine disease. Then comes pyæmia; that this is the result of an organised poison, the origin of which is animal, is proved both analytically and synthetically.

The next question of importance to us in our inquiry is—What does the present state of our knowledge teach as to the physical characters of these germs? First, that they possess the characters of the lowest forms of life. It is possible that in some cases they may be isolated as individuals. "M. Davaine has shown that the charbon contagieux, or sang du rate, or malignant pustule, depends on the development of bacteria in the blood."[3] In other instances we can only apply the term to them of "organised particles." Furthermore, we know concerning them that they have a long persistent vitality—they may almost suffer desiccation without loss of their vital properties—they may exist apart from the organism in which they are produced, and even without any pabulum whatever.[1] It is obvious that such particles may enter the organism carried by physical intermedia.

II.—*Diseases which arise from the absorption of occult vegetable poisons.*

That vegetable products, even inspired with the atmosphere, can produce morbific effects, is familiar to us in the phenomena of hay-fever and hay asthma. In such case, two conditions only are necessary, the presence of the irritant cause, and the susceptibility of the individual attacked. There is no multiplication nor diffusion of the poison from one individual to others. Organized vegetable products, cryptogamic vegetables, are admitted to be the prime factors of certain external diseases; their history is as well-known to botanists as that of other fungi; their reproduction is visible to the eye by means of the microscope, and it is observed that if they be transplanted from one individual to another, they not only fructify in the second, but produce all the ostensible phenomena of the original disease. To pass onwards to another disease which is now recognised as the result of the growth of a vegetable formation, we will take thrush. It is as well-known that the *oidium albicans* gives rise to thrush, as that the *achorion schonleinii* gives rise to favus. In thrush, however, we have a further development of phenomena; not only do the crusts of *oidium* occasion physical disturbances at the parts (the tongue and mouth) at which they are observed, but there exist also perturbations of the alimentary canal, which is beyond the range of vision. Diarrhœa, in these cases, is an almost constant symptom. In the case of diphtheria, the balance of opinion is, I think, decidedly in favour of causation by a vegetable organism. That this disease is communicable from one individual to another, under certain conditions, is proved by painful experience, for medical practitioners who have practised mouth to mouth insufflation in cases of impending death, from diphtheritic destruction of the air-passages, have themselves caught the disease, and have died. The detection of vegetal fructifications in diphtheria crusts is most easy; not only have spores and filaments of *oidium* been readily detected, but in diphtheritic patches in the intestine, a form of *urocystis* has been discovered. In diphtheria, therefore, we must of necessity admit the existence of a contagium, and evidence tends to show, with great probability, that this contagium is of vegetable origin. In ague the existence of a contagium is admitted by almost all observers. Dr. Bence Jones says, "Ague ferment is probably a highly complex nitrogenous substance, capable of being dried and carried by the wind far from the place where it was produced. It enters by the mouth with the dust, and, like animal or vegetable alkaloids, it passes from the blood into every texture of the body, and acts on each, much or little, according to its chemical properties."[2] Dr. Massay, by experiments made in Jaffa, in 1866, showed, with considerable probability, that this "ague ferment" is, in reality, a fungoid body. He found that increase of prevalence of ague bore a direct proportion to the occurrence of a certain phase of a fungus, which fungus was also found in the secretions of patients who suffered from ague. Dr. Salisbury, of America, also insisted on the same theory. He put it to synthetic proof by taking a box containing mould in which the ague-fungus vegetated to a distance where ague did not exist: some young men who breathed the atmosphere to which these fungi were exposed, caught ague after a few days.

Giving to the foregoing facts only the weight to which they are fairly entitled, I contend that we cannot fail to arrive at one conclusion, viz., *that many diseases which are*

1 Arrest and Prevention of Cholera, p. 30.
2 Lectures on Pathology, &c., p. 229.
3 Bence Jones, loc. cit., p. 222.

1 See Beale on Contagion, *Medical Times and Gazette*, Sept. 9 and 23, 1865.
2 Lectures on Pathol. and Therapeutics.—*Medical Times and Gazette*, March 17, 1866.

term zymotic have, for their veræ causæ, organised poisons, derived from the animal or vegetable world.

Although, *ab origine*, animal or vegetable, we cannot say whether the actual *materies morbi*, at its period of infection, is the one or the other. Dr. Beale asserts[1] that "the *materies morbi* concerned in the propagation of various contagious diseases is not a low form of animal or vegetable organism, but germinal matter, which was originally derived from that which exists usually in the higher organisms." So, also, Bence Jones,[2] "There is so little difference in the chemical composition of animal and vegetable substances, that the distinction between animal and vegetable poisons is no longer possible. Vegetable albuminous matter undergoing change may produce almost, if not quite exactly, the same poison as animal albuminous matter. Hence, probably, the resemblance between the ague poison and the typhoid fever poison, and the possibility that sometimes one, and sometimes the other, of these poisons may be formed from the same changing matter under different circumstances."

Although, therefore, we cannot always ascribe to the actual producing cause of disease—the germinal matter—positive animal or vegetable characteristics, we are constrained, in my opinion, to admit that, in the human body, there can be an animal fermentation, and there can be a vegetable fermentation. The first finds its exemplum in variola, wherein an undoubted animal poison increases and multiplies in the body, modifying the functions of the economy, both by the effects of its own presence, and by the alteration of the fluids of the system, which its growth and multiplication induces; the second has its exemplum in thrush, wherein occurs the undoubted growth of a vegetable, whose sporules and fructification are obviously transmissible with the production of the ostensible signs of the original disease.

We have now, as I think all will agree, made out an *à priori* case for the discussion of

Proposition IV.—*That there are strong grounds for believing that the poison of cholera is a zymē of vegetable origin.*

The recent remarkable researches of Hallier afford the first approach to proof of this proposition.[3] It was no novelty to show that vegetable formations existed in the dejections of cholera patients; this occurrence might be *post hoc*, yet not *propter hoc*, for confervoid growths occur in the excreta in various other diseases. A step in the history of causation was, however, made when Drs. Brittan, Swayne, and Budd, of Bristol, showed that not only the dejections of patients but the air of cholera-localities, as well as the drinking-water of infected places, contained cells of a vegetable character. Hallier has gone farther than all observers, for he has not only demonstrated fungous growths in the dejecta of cholera-patients, but he has traced the natural history of the growths, and found them to be peculiar. They are not mere torulæ, not mere varieties of *oidium*, but bodies of a peculiar cyst-form (*urocystis.*) Except from cholera-dejecta, Hallier has never been able to procure this form by artificial growth. On tracing the analogy of this *urocystis*, a step further in the history of causation is attained. The identical urocystis, thus supposed by Hallier to be the active agent in producing cholera, is found, under certain conditions, to infest rice. Rice was long ago, in India, supposed, when in a state of disease, to occasion outbreaks of cholera; and, in 1833, Dr. Tytler expressed his belief, in a most positive manner, that the use of diseased rice was the prime cause of cholera. Even in this country bad rice has been known to occasion choleraic diarrhœa. It is unnecessary for me to point out that these observations of Hallier have added much of completeness to our opinions concerning the prime cause of cholera; they have consolidated our former knowledge, and have given it a fresh impetus.

Cholera is known to affect high temperatures. Hallier shows that the urocystis requires a high temperature for its development. Pettenkofer says, that for the production of cholera there must be the union of two factors, a virus (an organic principle) and a peculiar state of locality, (a porous soil impregnated with human sewage.) Hallier shows that the fungus requires nitrogenised matter for its growth. What is true of externals is true also of internals; what may be said of the spread of cholera-germs may be said also of the development of the germs in the individual. As I have said elsewhere, "External circumstances ripen the seeds, internal circumstances prepare the soil in which those seeds may spring into life, and grow."[1]

The field which these observations open out for investigation is a very wide one, and worthy of diligent exploration. It would be interesting to trace the relation between the milder forms of diarrhœa and the occurrence and development of fungi, for it is reasonable to conclude that some sort of analogy subsists between these diseases. On this point a series of cases which have lately occurred in my practice are, I think, somewhat suggestive. On August 12th, 1867, I was hurriedly called to the servant of a neighbour of mine, who was supposed to be suffering from cholera. There had been slight diarrhœa, followed by signs of extreme prostration, pallor, and coldness. A sense of great oppression was referred to the epigastrium. Fortunately the diarrhœa did not persist, and, though the prostration signs were long persistent, the patient recovered in about a week. On the 16th, *i.e.*, four days after the occurrence of this case, I was called to a patient who lived in a house situate exactly at the back of that in which the first case occurred. This patient had suffered from veritable Asiatic cholera in a former epidemic, and she described her symptoms as exactly those which she suffered from before. The diarrhœa, however, in this case did not persist, and the patient recovered. On the 23rd, I was sent for to see an old lady in the immediate neighbourhood, who also was suffering from symptoms of severe and uncontrollable diarrhœa. Her case was most peculiar, for, on my second visit to her, I discovered, both on the dorsum of the tongue and on the tonsils, *distinct patches of oidium.* Under the influence of sulphite of soda her symptoms steadily declined in severity, though not before the condition of the mouth had become a severe local lesion, impeding deglutition, and, ultimately, peeling off and leaving a sore surface. The questions which now arose in my mind were these—Has the occurrence of oidium any causative relation with this case? and have the other cases which have occurred in the neighbourhood any correlation therewith? Of course I do not pretend to give an answer in the affirmative to either query, though I cannot help thinking that the circumstances suggest it, particularly as further evidence is forthcoming. Four doors from the last-mentioned case, I had been attending a case of scarlatina: on August 27th I was hurriedly summoned to the house, to find two children (who had shown early signs of the last-mentioned disease), seized with violent purging, and signs of almost impending collapse. Both were cold, with blue lips, and marble-like surface; both suffered cramps, and excessive diarrhœa, the discharges being fluid and flocculent, and almost destitute of bile. They were certainly in the most critical condition, though they ultimately recovered. At the same time I attended a servant living a few streets off, who suffered from almost identical symptoms; her attack commenced on the 24th.

I have attempted only the briefest outline of these cases, though I have all the details to compile their histories. There can be no doubt whatever that they were cases of choleraic diarrhœa, which in some assumed a severe form; and their occurrence coincidently in point of time and place, with one in which oidium was unmistakably observed, cannot be regarded otherwise than as a circumstance of interest.

I am well aware that I have, as yet, adduced insufficient evidence for the proof of the proposition which I have just

1 On Contagion. 2 Loc. cit.
3 Das Cholera-Contagium. Botanische Untersuchungen, Aertzen und Natur-forschern metigtheilt. Von Dr. Ernst Hallier, Leipsic, 1867.

1 On Cholera, p. 32.

now enunciated. I have so far, however, shown that it is contrary neither to reason nor to experience, and that the labours of late observers have given to it an air of great probablity. My argument does not halt here. In another communication, if you will permit me, I shall show that those means which check the formation and arrest the vitality of low forms of vegetable life, are successful in preventing and arresting cholera. Lastly—I shall take up the challenge of my reviewer to demonstrate each link in the physiological chain of causes by which, through the operation of an organised vegetable poison, "the phenomena in question are produced." Thus I shall hope to give completeness to my theory of the causation of cholera.

CASE OF HYDROCELE CURED BY THE ELECTROLYTIC TREATMENT, WITH REMARKS ON THE BATTERY EMPLOYED.

By G. D. POWELL, M.D., L.R.C.S.I.

Mr. K., aged 54, consulted me respecting a hydrocele he has had for some years, and was three times treated by injection, but always resulted in a recurrence of the effusion. The tumour is now very large and painful. Thinking the electrolytic treatment might be of use, I determined on giving it a trial. Accordingly, on the 12th of January last, I introduced into the anterior part of tumour a gold plated needle connected with the negative or zinc terminal of twelve cells of Daniell's battery (modified as in use by the Electric Telegraph Company), while the positive pole connected by a moist sponge conductor, was applied to the other side of testicle. The current was allowed to pass for five minutes, and no great pain was experienced after the introduction of the needle. The testicle was afterwards faradyzed for five minutes with a gentle induction current.

This treatment was repeated on three alternate days, at the end of which time the testicle was nearly its natural size. It is now over nine months, and there has been no recurrence of the effusion.

The battery used was, as mentioned, same as at present in use by the Electric Telegraph Company, and is a modification of Daniell's. It consists of a wooden trough divided into twelve compartments, the interior of which is well coated with marine glue.

The compartments are separated by alternate partitions of slate and porous plates of half baked earthenware, the zinc and copper plates being connected together by a strap of copper, and suspended across the slate partitions, thus allowing no action to take place between the two metals, except through the porous plate. The cell in which the copper plate rests is charged with a strong solution of sulphate of copper, and that in which the zinc plate rests with plain water only.

The plates so arranged, and battery charged, will be brought into action as soon as the copper solution has saturated through the porous partition, and it has the advantage of producing a strong steady current, well suited for all electrolytic experiments.

A battery of this description has been known to remain in action for upwards of eighteen months without the plates or cells being cleaned, it being only necessary when the current is weak to add a few crystals of sulphate of copper to copper cell, and plain water to zinc cell, while any power from one cell to one hundred can be obtained. To carry it from place to place it is only necessary to draw off a little of the water and solution from the cells.

This form of battery is the one generally used by the above company, and is, in my opinion, the best for the electrolytic treatment, and also for any other form of treatment where a constant and reliable current is required.

The objection to the form of battery described by Dr. Althaus in his pamphlet, and made by Weiss and Co., is the immersing of the zinc into a solution of sulphate of copper, because it is a well-known fact, that both zinc and iron, when put into a solution of sulphate of copper, decomposes it, by chemical affinity. The acid separates from the copper and dissolves the other metal, leaving metallic copper in its place.

I therefore have no hesitation in saying that the battery described by Dr. Althaus is inferior to the one used by me, being less constant, and more liable to vary in intensity.

Many modifications have been either mentioned or suggested to me by medical men, but I believe for all decomposing purposes it is the best at present known.

I may mention it is in use by Dr. Radcliff, at the National Hospital for the Paralytic and Epileptic (*vide* Lancet, November 24, 1866). They were made for me by Mr. Muirhead, the talented manufacturer to the Electric Telegraph Company in London.

VESICO-VAGINAL FISTULA. FOUR MONTHS' DURATION: TWO OPENINGS: SINGLE OPERATION: CURE.

By ROBERT J. CREAN,

PHYSICIAN AND SURGEON, WEXFORD.

Mrs. D——, residing six miles from Wexford, aged 43, mother of six children, half males. On the birth of each male she was delivered by Dr. Furlong, of Streamville, with the forceps. The last, a male, accouchment occurred on the 19th of May, and was about two days' duration. Inflammation of the vagina followed, and three days after she found her urine constantly escaping, in whatever position she was placed.

An examination, when the parts permitted, revealed an opening through which the catheter could be passed from the bladder into the vagina, about three inches from the meatus.

On the 17th of September, present Dr. Furlong, Streamville, Drs. Goodall, Boxwell, and Furlong, Wexford, I placed her in the lithotomy position, as advised by that eminent surgeon, Mr. Baker Browne, to whom the suffering female world are so much indebted, under chloroform. Dr. Boxwell introduced the duck-bill speculum, and, to our great surprise, we found two openings, the edges of the superior one being thickened and corrugated. I pared the opening freely all round, and closed it in the *longitudinal* diameter by four points of iron wire suture by means of the perforated needle; not a little trouble ensued from a constant bearing down whilst inserting the sutures, though fully under the influence of the chloroform.

I then adopted a similar course with the inferior one, which I closed by three sutures. I did not use either button or saddle. Tied a catheter into the bladder, and gave her forty drops of laudanum. The urine passed through the catheter was very much coloured with blood, and five hours after had to be removed—the blood coagulating in it. It was washed out and replaced.

18th, 8 A.M.—Had a bad night; constant forcing pain; hæmorrhage continuing; cannot bear the catheter. To be left out, and passed every two hours. Ice into the vagina; opium every six hours, and opiate enemata.

6 P.M.—The hæmorrhage continuing, I syringed the bladder with ice-water, which stopped it. A few hours after violent pain came on. She got up to the night-chair, and passed a large amount of clots. All pain ceased, and the next urine drawn off was clear. She progressed without a single unfavourable symptom.

On the 29th we removed the sutures, and found the parts all healed.

Next day she was allowed to pass her urine, and this day, October 7th, leaves for her home, and, to use her own expression to her medical attendant, Dr. Furlong, "as dry as ever."

To Dr. Beatty, of Dublin, I beg to express my obligations for his kindness and valuable suggestions in this truly gratifying case.

CHOLERA THEORIES.

No. VIII.

(Continued from page 405.)

An un-prejudiced consideration of the bearing of each of the numerous facts marshalled together with surprising ingenuity, so that they all contribute to and enforce the general argument, cannot fail to impress upon the reader the conviction that the cardinal principles expressed at the opening of the pathological exposition we have now briefly sketched, are supported by an amount of evidence in the presence of which it is almost impossible to doubt their truth. Assuming that those principles are established, it is clear that in order to discover the remote causes of cholera we must search for such influences, as by their operation on the organism, are capable of acting either primarily or chiefly on the nervous system.

Guided by this conviction, the author has written his chapter entitled *Causes of Cholera*. At its opening he says:—

"The pathology of cholera having been already discussed, I have only to advert here to its *remote* or *predisposing* and *exciting* causes. These terms are, in my opinion, objectionable; for, in respect to the causes of cholera, at least, they are often interchangeable: thus, assuming the pathology of cholera explained in the preceding chapter, atmospheric heat may induce undue vascularity of the nervous centres, and so predispose them to excessive functional activity; if now the person in whom this change has occurred drinks freely of alcoholic liquors, or water containing a considerable proportion of organic matter, he may directly, through the stimulating influence of the alcohol on the nervous centres, or indirectly through irritating the nerves of the alimentary mucous membrane by the bad water, so excite those centres as to produce cholera; and conversely, alcohol or bad water acting as stated on nervous centres not already predisposed to cholera, may render them hyperæmic, thus inducing in them a predisposition to the disease, and when this condition has been established in this manner, the supervention of great atmospheric heat may excite in them that excessive activity resulting in cholera. Hence it appears, that what is a predisposing cause in one person may be an exciting cause in another, and *vice versa*. I shall, therefore, not attempt to discriminate between the so-called predisposing and the exciting causes, but shall endeavour so to arrange the several kinds of causes, as to facilitate, as much as possible, an understanding, and appreciation of their modes of action. In Part I. of this book different kinds of diarrhœa are arranged according to my conception of their different causes. The various causes of cholera are, I believe, essentially the same as those productive of diarrhœa, but, whereas one only of the causes enumerated in the first part of this book, is very often productive of diarrhœa, the sources of cholera are more frequently complex, and thus effect, by their co-operation, results which, acting singly, they would be unable to produce.

It seems to me it will conduce to the acquisition of the most correct conceptons concerning the etiology of cholera, to range its causes primarily into three classes, as follows:—

First. Epidemic Causes, viz., *Solar Heat; Wide Ranges of Temperature; Atmospheric Electricity; Deficiency of Ozone; Malaria.*

Second. Telluric Cause, viz., *Lowness of Site.*

Third. Endemic Causes, viz., *Prolonged Marches, Pilgrimages and Ordinary Travelling on Foot; Noxious Effluvia; Impure Water; Bad Food and Eating to Excess; Dental Irritation; Purgative Medicines; Opium; Alcohol; Habitual Excitants of the Nervous System; Mental Emotions; Influences chiefly operative during the Night; the Tendency of Cholera to recur in the same Individual, and in the same nation.*"

The author then carefully reviews in succession each of these alleged causes, demonstrates separately their precise *modus agendi*, and proves that by their operation they tend to produce that morbid condition, which, as he maintains, is the proximate cause of cholera. Whatever doubts may be entertained concerning his views of the etiology of cholera, there can be none as to the consummate skill with which the facts adverted to in each section of this chapter are ranged and presented so as to establish the doctrine which the author advocates. The various influences enumerated above have been adverted to by many previous writers, but, so far as we are aware, the several links in the chain of causation by which those influences produce the phenomena of cholera, have never before been exhibited: it is in this respect that the chapter under consideration displays an amount of insight and originality, as well as logical cogency, which cannot fail to commend it to every philosophical mind. It is one thing to see that there is some causal connection between great atmospheric heat, wide ranges of temperature, prolonged marches, and influences operative during the night, on the one hand, and the origination of cholera on the other; but it is quite another thing to show distinctly, and in detail, the *modus operandi* of these agencies: this achievement, in respect to each agent discussed, constitutes the characteristic excellence of Dr. Chapman's elaborate exposition, of which the following passage is an instructive example:—

"It being apparently indisputable that solar heat favours the development of cholera, and that the influence of such heat is very greatly augmented in proportion as it is accompanied by a wide diurnal range of the thermometer, the question arises,—what is the *modus agendi* of heat alone, and of heat associated with great variations of its intensity in inducing cholera? It is an established fact, that during epidemics of cholera the greatest mortality occurs among children under one year old. It is equally established that when, what I think it correct to call, the choleraic influence is epidemic, but not sufficiently potent to develop its most characteristic features, its destructive energy under the form, in England, of summer diarrhœa, is almost exclusively expended on children. Why is this? The true answer seems to me as follows:—During childhood, the vital processes are at their maximum degree of activity: the circulation is extremely rapid, as every part of the body is making copious draughts on the blood, in order to effect, not only its sustenance, but its growth. The nervous system, and especially the brain, is increasing with astonishing rapidity, and the arteries throughout the body being in the highest degree vital, are dilatable and contractible to an extent and with a facility far greater than during the subsequent periods of life. Moreover, the process of teething causes a multitude of irritating impressions to be transmitted to the medulla oblongata, and thence to other parts of the nervous system, resulting in a great increase of the already hyperæmic condition of that system. Hence it is that fluxes and refluxes of blood to an abnormal extent in the nervous system of children, and the consequent phenomena constituting most of the diseases of that system, are producible in them by causes which, in later years, are either seemingly inoperative or incapable, in the majority of cases, of producing serious results. Hence it is, that of the 180,902 persons destroyed in England by convulsive diseases during the seven years 1848–54, 164,876 were under five years of age; and hence it is, as I maintain, that the increase of heat during English summers, chiefly operates, so far as the disease in question is concerned, in intensifying the already extremely vascular condition, and, consequently, the functional activity of the nervous system in children, and thus of producing the so-called summer diarrhœa, or *cholera-infantum*, which is often as destructive as cholera itself.

"Now the influence of a great increase of atmospheric heat operates to increase the vital activity of all parts of the body, and on the principle expressed in the words—"to him that hath shall be given," the nervous system, already the most vascular, becomes disproportionately still more so, and, therefore, more active. In this way, the susceptibility of the adult organism during cholera times is made to approach, in a certain degree, to that of the child in ordinary times; while the susceptibility of the latter acquires, through the agency of unusually great atmospheric heat, its utmost possible intensity. When excessive hyperæmia of the nervous centres has been thus established, their functional activity is at its maximum, and may spontaneously originate cholera; and when they do not, as they are rendered excitable in the most extreme degree causes which in ordinary times would produce but little, if any, obvious effect, are now adequate to induce that morbid exaltation productive of the disease in all its grades. Hence it is, that in hot climates, diarrhœa is always prevalent among adults, as well as children; and that in India, where the most favourable conditions for the development of cholera obtain, though it retires as an epidemic, it is never wholly absent."

At the beginning of his chapter on Treatment, the author says:—

"If the hypothesis now expounded be correct, it is obvious that the whole aim in the treatment of cholera should be the restoration of the circulation of the blood to its normal state of equilibrium in all parts of the body, and primarily and pre-eminently in the automatic nervous centres. Whatever agents will most rapidly and completely effect this result will prove the best remedies for cholera."

He gives reasons for thinking that a time may come when it will be possible so to apply galvanism as to accomplish the object in view; but he adds—

"In the present state of knowledge there is, however, no available power of subduing hyperæmia of the automatic nervous centres comparable to that of ice applied along the spine."

Having adduced many therapeutical facts in support of this statement, and given careful directions how rightly to, apply the ice, he discusses the several plans of applying heat simultaneously to the general surface of the body. He insists strongly on the great importance of this "co-operative" remedy, which, though of little avail when used alone, is likely, as he shows, to be of great value in treating algide cholera, if properly applied, while ice is at the same time being applied along the spine. He gives detailed directions for the entire management of the patient according to his method; and we cannot too strongly urge those who intend to test its value, to make themselves thoroughly acquainted with those directions, as explained by himself; unless they do so, it will manifestly be unjust to credit the method with any failure that might occur. It is needless to point out how greatly the success of any particular method is dependent on the completeness and skill with which its several requirements are complied with. During the stage of "reaction," the author's plan of checking any tendency to excess, or of subduing it when present, consists in the judicious application of warmth along the whole or some part of the spine, in a double-columned water-bag. He is very emphatic in advising that the temperature of the water used in these cases be of the lowest temperature consistent with slowly attaining the desired end. The vascular system of many patients may be influenced by water at 105° Fahr. It will, however, be found most available at 110°, and may range, particularly if the patient's body be well clothed with fat, to 115°, or even higher.

Section II. of the chapter we are now adverting to is on Treatment by medicines. This contains a review of the experience already obtained of the effects of the medicines which have been most generally used. The author fully coincides in the opinion expressed by the most reliable authorities that those effects have been rarely beneficial, but, on the contrary, very often injurious. The two drugs on which he would be disposed to place most reliance are bromide of potassium and arsenic. Referring to the peculiar and sedative influence on the nervous system of the former, he says—"It is reasonable to suppose, if the proximate cause of cholera be what I allege it to be, that bromide of potassium will exert a curative influence over it." He adds, respecting arsenic—"Considering its remarkable power of promoting the peripheral or capillary circulation, I should expect, *a priori*, that in the treatment of cholera it would prove one of the most beneficial medicines."

We particularly mention the proposal of bromide of potassium, since cases of recovery from cholera collapse, after the use of that drug, have already been recorded.

The concluding chapter, entitled "Cases and Results," will be read with particular interest, for it is only natural, however beautiful or complete a theory may be, to consider the results of its trial as the touchstone of its value. Any treatment which manifestly controls morbid action, whether an explanation of its mode of doing so be forthcoming or not, deserves serious attention, while the indisputable deductions of a theory, without success in practice to support them, would be liable to be disregarded. Only thirty-seven cases are related as having been submitted to this plan of treatment, and most of them only imperfectly so. This number is evidently too small to afford data from which to estimate the value of the method in question. Yet, the reports of these cases seem to be sufficiently encouraging. In some instances a favourable response to the influence of the treatment appears to have been rapid and decisive, and to have impressed impartial observers with a conviction of its utility. It is useless now to inquire why, in the last epidemic, those who had under their care large numbers of cases, did not put this method to the test. It is painful to know that remedies that had over and over again been shown to be useless, were once more resorted to, both in cholera hospitals and other institutions, while what was new, and not yet sufficiently tried, was simply neglected. The clamour of ignorant correspondents of the lay press seems to have been the only reason why patients should have been abandoned to Rubini's camphor drops, in favour of which we have never heard a single argument; while a method of treatment, based on a broad pathology, and unquestionably logical deduction from a theory which no one has yet ventured to grapple with, was, so far as we are aware, untried. We certainly think that grave responsibility attaches to those who have thus let slip an opportunity which we cannot but hope may not soon be afforded them again. We have yet to learn on what ground those who could not be ignorant of the plan neglected it for others that have been so often practised, and with such lamentable results. It is now time that the profession turned the closest attention to the subject of cholera and its treatment, lest a future epidemic should find the same apathy prevailing.

That every one may have the opportunity of investigating the various theories of cholera is the main object of this series of papers. We have devoted more space to the analysis of Dr. Chapman's doctrine than to any other, because we have found it necessary to do so in order that the reader may easily comprehend it in all its ramifications. It is based on such broad foundations, and the several parts so depend on each other, that it seems almost impossible to separate one part from the others without endangering the whole superstructure. We trust, after the full exposition we have given, that no difficulty will be felt by any attentive reader. At the same time, as the most careful critic can only give the mere outline of such a theory as this, we commend all who have thus far been interested, to resort to Dr. Chapman's book, in which they will find it presented to them with all the completeness that the most elaborate arguments and abundant illustrations can impart. To induce them to do so, we subjoin the concluding paragraph, showing the actual results that have been obtained :—

"What percentage of recoveries in cases of actual collapse can be effected by the treatment recommended in the previous chapter, remains to be proved; but the facts already adduced, showing that, notwithstanding the extremely adverse circumstances under which the patients at Southampton, both in 1865 and 1866, were treated, 26 out of 33 in collapse were completely rescued from that state, and 4 more were rallied, 2 of them, to a great extent, have a favourable significance which it would be diffcult to over-state; and when considered in conjunction with Dr. Griffin's assertion that the spinal ice-bag, when used alone even, stops cramps, purging, and vomiting, and makes the patient warm, and prolongs life, encourage the most sanguine hope that when ice along the spine and heat over the general surface of the body are properly applied, and when all my other injunctions are complied with, as Dr. Wiblin rightly insists that they must be, cholera will be ranked among those diseases over which medical science has obtained remedial control."

A New Quarantine.—An order in Council directs the Liverpool Customs authorities to impose quarantine on all vessels entering British ports from places within 52 deg. and 100 deg. west longitude and 4 deg. and 34 deg. north latitude. The quarantine is in every case to be maintained until a medical examination is made of those on board.

Hospital Reports.

KING'S COLLEGE HOSPITAL.

REMOVAL OF UPPER EXTREMITY, SCAPULA, AND PART OF THE CLAVICLE.

Under the Care of Sir. W. FERGUSSON, Bart.

THIS formidable operation was performed, as reported in our last number, on the 19th of October, and has since been one of the foremost topics of conversation in professional circles. The patient was a carpenter, and came from Australia in the hope of finding some relief for his sufferings. Two years ago he received some slight injury, since which a tumour appeared, apparently springing from the scapula. This bone was, in the opinion of Sir William Fergusson, irremediably diseased, and he resolved, therefore, to give the man such chance as its removal might offer.

When brought into the operating theatre, the patient seemed a stout, hearty man, and although having traces of suffering in his countenance, did not give the casual observer the idea that his case was so serious. Chloroform having been administered, Sir William made an incision over the clavicle, extending from its outer end two-thirds of its length. The soft tissues having been dissected off, he then removed about half of this bone with the forceps. He now extended his incision along the border of the scapula. He next dissected away the soft tissues, and removed the entire scapula, together with the upper extremity. The dissection in the axilla was extremely delicate and rapid, and admired by every one present. When the vessels had been secured, and the sutures put in, not a few were astonished at the exactitude with which the edges of the wound came together. A very small quantity of blood was lost. The subclavian was commanded by Mr. Wood. The tumour consisted almost entirely of bony tissue, only a few streaks of a cartilaginous nature being observed.

The patient revived from the effects of the chloroform before being taken from the theatre, and seemed to present a hopeful appearance. After a few hours, stimulants became requisite, but he soon fell into a state of collapse, and died on the 21st. At a post-mortem examination it was found that a fatty condition of the heart and liver existed. The kidneys were also in a similar condition, but in a minor degree.

It is but seldom that the surgeon ventures to perform so formidable an operation as the one we have above described. About two years ago a similar proceeding was adopted by the same operator, and the success attained on that occasion, as well as by Professor Syme on another, encouraged the hope of a more favourable issue in this case.

The late Mr. Jones of Jersey, also performed this operation on a young girl, and the preparation is now to be seen in the Hunterian Museum. Professor Syme's case was in 1862, and proved a complete success, for his patient drove out in excellent condition three weeks after the operation.

Going further back in the history, we find Mr. Fergusson, in 1847, removing the scapula. A little earlier, M'Clellan and Gibert, both well-known surgeons of Philadelphia, performed this operation. M. Rigaud, in 1842, performed a similar operation at Strasbourg. The earliest case we have met with is recorded by Mr. Mussey, of Cincinnati, a cure being effected in two months. Besides the cases of recovery from this formidable surgical proceeding, several credible instances are related in which the whole upper limb, with the scapula, has been torn away, by machinery, and yet the patient recovered the accident. From these circumstances, we are perhaps justified in hoping that in cases in which no other aid can be afforded, even this severe operation may be justified, and, becoming recognized, may prove less fatal.

ST. GEORGE'S HOSPITAL.

ANEURISM OF CORONARY ARTERY.

Under the care of Dr. J. W. OGLE.

W. S., aged 26, pale, admitted Jan. 2, 1867. Said right arm had given him dragging pain at times for some time past. Moved his arm with great difficulty. He had complete wrist-drop; it felt numb, but skin is not insensible; near elbow a patch of ecchymosis; hardness of muscles up to axilla; pain in back; tenderness over kidneys. Could not take a deep inspiration. Heart beats tumultuously; murmur with first sound. An exocardial bruit was also considered to exist by some who saw the case. Pulse irregular, 104; intermits frequently. Dulness at apex of right lung, with prolonged expiration; deficient respiratory murmur, and increased vocal fremitus. Urine clear; sp. gr. 1014; no albumen, nor blood-casts: a few chrystals of hæmatine.

The bowels were opened by castor-oil, and a dose of morphia was ordered at bed-time.

The next day he seemed better, but in the afternoon fainted. Sal volatile and ether were given. Later he fainted again. After another short rally stertorous breathing came on, and he died soon after.

Post-mortem examination showed an atheromatous condition of the arteries at the base of the brain. Some of the small veins at base of cerebellum were occluded by blood-clots, which were to some extent decolourized. In the chest, the pleura of right side was adherent; left lung congested. Pericardium full of clotted blood; heart not contracted; aortic valves thickened. Three branches of the coronary artery displayed aneurismal dilatation. One aneurism, the size of a pea, projected from the surface about an inch from the base, on the left side. Another, a little larger, occupied by a hard-feeling clot, was near the root of the pulmonary artery in front. Connected with this, a branch of the coronary artery was quite occluded and shrunk. To the right of the preceding, a third aneurism, much larger, and empty, was found. In the walls was a perforation, through which the blood had escaped and filled the pericardium. This aneurism communicated with a healthy branch of the coronary artery.

In the abdominal cavity the liver was found to be hard and congested. Right kidney also congested, and at its base the remnants of a similar pouch; other viscera healthy.

On making an incision into the swollen part of the right arm, it was seen that a good deal of blood had been extravasated. The source of the hæmorrhage was not traced. Lower down the arm two similar pouches were found, in small branches of the brachial artery. One of these pressed on the median nerve.

It was ascertained that this patient had had acute rheumatism twelve years ago, and two or three other attacks of an obscure kind more recently, which had prevented his moving his arm at the time. Death was clearly caused by the hæmorrhage into the pericardium, from the rupture of the sac. Cases of aneurism of the coronary artery are extremely rare. One was recorded by Mr. Tufnell, of Dublin, in 1853, which was the last to which our attention was directed.

SUICIDE OF A LUNATIC.—Mr. Jasper Gordon, a gentleman of large property, committed suicide a short time ago under the following circumstances:—He was in his garden attended by his keeper, and for some time the former followed his usual habit of picking up leaves and sticks on the path. While the keeper was looking in another direction, the unfortunate gentleman picked up an old rusty table knife, and, holding it with both hands, succeeded in inflicting fearful wounds in his throat before he was secured. He was conveyed into the house and strapped to his bed; the wounds were then bandaged. The lunatic struggled fearfully to rid himself of bonds, and at length the bandage gave way, and there was an instantaneous flow of blood. In a few minutes death occurred.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR OCTOBER, 1867.

1 Companies.	2 Date and Place of Collection.	3 Total solid impurity in 100,000 parts.	4 Organic Carbon.	5 Nitrogen as Nitrates and Nitrites.	6 Ammonia.	7 Total Combined Nitrogen.	8 Previous Sewage Contamination (Estimated.)	9 Total Hardness.
THAMES.								
Chelsea ...	Oct. 2nd. Cab-rank, Horse Guards.	26·28	·304	·202	·001	·212	1045	17·5
W. Middlesex ...	Oct. 2nd. Cab-rank, Portland-row.	23·70	·258	·136	·001	·140	385	16·0
Southwark and Vauxhall ...	Oct. 2nd. Barclay's Brewery.	25·90	·261	·167	·002	·210	705	16·0
G. Junction ...	Oct. 9th. Cab-rank, Woodstock-street.	25·10	·221	·141	·001	·145	435	17·5
Lambeth ...	Oct. 9th. Cab-rank, Lambeth-road.	26·90	·218	·207	·002	·230	1105	18·3
OTHER SOURCES.								
New River ...	Oct. 22nd. Cab-rank, Tottenham-ct.-road	26·60	·129	·219	·001	·224	1215	18·7
E. London ...	Oct. 15th. Slater's Lampblack Works, Old Ford-road.	27·22	·164	·108	·001	·118	105	20·5
Kent ...	Oct. 9th Deptford Railway Station.	41·74	·120	·345	·000	·348	2465	25·8
Loch Katrine ...	February. Glasgow.	3·28	·256	·031	·002	·041	0	0·3
Lancaster ...	September. Lancaster.	3·54	·157	·036	·001	·038	0	0·1

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, and by the water supplied to the town of Lancaster, when submitted to the same analytical processes. The numbers in columns 3, 4, 5, 6, 7, 8, and 9, all relate to 100,000 parts of the waters. The table is to be read thus: 100,000 lbs. of Chelsea water collected on 2nd at the Horse Guards cab-rank contained 26·28 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·304 lb. of carbon. This solid impurity also contained ·202 lb. of nitrogen in the form of nitrates and nitrites, besides ·001 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·212 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 1045 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames or its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been entirely converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 17·5 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The Southwark Companies water, which has hitherto been always turbid, is this month perfectly clear and transparent, but the waters delivered by the Chelsea, Grand Junction, and Lambeth Companies, were all contaminated by suspended matter, showing imperfect filtration. It is of the utmost importance that the water supplied to London from rivers, contaminated by sewage, should be filtered with great care before delivery. The Kent Company's water had a milky appearance, due, in all probability, to the separation of carbonate of lime, with which this water is highly charged.

ROYAL COLLEGE OF CHEMISTRY.
London, October 31, 1867.

THE SANITARY REQUIREMENTS OF LARGE TOWNS.

DR. CORNER, the Medical Officer of Health for the hamlet of Mile End, Old Town, has just issued his report, from which we gather some interesting particulars, showing that a large amount of useful work has been done, and reflecting credit on his energy in the discharge of his important duties. These reports of Health Officers are all worth reading; the only point in which they seem defective being that of uniformity. It would be a great convenience if all were reduced to the same plan, so as to admit of more easy comparison.

If we distinguish the exceptional deaths from cholera, from those produced by all other causes, we find the total ordinary mortality of last year was 135 below the average of the four preceding years. The unprecedentedly healthy condition of the hamlet for the six months ending June last, has no doubt greatly contributed to the favourable result. It would be during this period that the sanitary measures previously initiated and carried out, would produce their beneficial effects.

The number of deaths at different ages shows, in infancy, an excessive and disproportionate number. The idea is too common that children must, in some preordained or conventional way, have measles, whooping-cough or scarlatina; in other words, that the germs of these fatal diseases are congenital and born in the flesh; such views Dr. Corner says are "entirely fallacious; constitutional diseases, such as consumption, arising in an abnormal and defective condition of the integral constituents of the body are so inherited by the infant and afterwards developed into fatal disease; but that the specific and active blood-poisons of the infantile diseases referred to, which incubate, develop, and exhaust themselves in a few days, should remain dormant in the system for an indefinite period and then suddenly become active, is a theory quite untenable." He adds that "if it were possible to exclude and preserve children from the producing causes of infantile diseases by which they are surrounded directly they are born, they would remain free from those diseases, and then after arriving at adult life suddenly place the same individuals within the influence of such causes, they would be just as susceptible to the diseases as in childhood."

Dr. Corner further thinks that, "when the diseases are not fatal they may leave behind them such a condition of the system as will be most damaging to the constitution of the future man probably for generations to come. Therefore, to elucidate and eradicate the causes of this class of infantile diseases is to strike at the roots of the greatest and most insidious enemies to health and life, and they are unquestionably amenable to preventive measures."

Respecting overcrowding and ventilation, Dr. Corner remarks—"With a belt of air forty miles in depth surrounding the earth, surely it is the refinement of cruelty to restrict its supply within limits which we know to be not only injurious, but ruinous to the health and well-being of present and future generations. If the enormous supply of air above mentioned should ever prove insufficient, no doubt the credulity of the

public would be equal, as is proposed, in the case of water, to contribute the means for a supply being brought from an indefinite distance, so there need be no fear on the ground of the Metropolitan supply of air becoming exhausted. We are most solicitous to avoid the consumption of unsound or adulterated food, which is consumed only at intervals, but the air we are incessantly breathing, is permitted to be consumed impure and poisoned in quality, and restricted and utterly deficient in quantity, although a pure and inexhaustible supply is provided for all. The effect of respiring this poisonous air is to produce prostration of the vital energies and want of power to resist the attacks of disease. A labouring man sleeping, or rather narcoticizing, with his wife and family in a room, allowing from 50 to 150 cubic feet of air to each person, and without the most ordinary provision for ventilation, becomes totally unfitted for his work, and unable, however willing, to bring to his aid sufficient vigour and spirit to attempt to raise himself and family from their condition of poverty, misery, and dependence. In this way the statistics of pauperism are increased, several instances of which, through the deaths of heads of families, I have already seen in this hamlet. These questions of overcrowding, and consequent deficient and impure air supply, are therefore the most important subjects which I can urge, and it is my duty to do so, upon your consideration, as the legitimate and responsible guardians of the public health. Mile End is not an exception to all other large communities, in having densely packed populations and squalid poverty in certain localities, existence in which only proves the tenacity of human life under the most adverse and pernicious influences.

"The supply of air according to the space is often insufficient to sustain life for a single day, and but for its adventitious and accidental ingress, sudden deaths would occur instead of being preceded by prolonged illness; indeed, doubtless many mysterious sudden deaths are attributable to this cause."

As to water supply, we learn that "there have been a few complaints of deficient supply, but these have been satisfactorily attended to upon my application to the Company. The principal defect under the present intermittent system is the absence of a Sunday supply. This is more especially felt in some of the poorer districts, where the water is not turned on until late in the day on Mondays.

"Wherever practicable the Committee have ordered water waste preventers to be provided, this is tantamonnt to a constant supply."

We cannot pass by one more quotation on diseased food and adulteration, which is well worth consideration. Dr. Corner says, "I believe adulteration of food is much encouraged by the excessive demand for all articles included under the name of 'luxuries,' and to supply them in a pure state is beyond all present productive power. This general custom of adulteration often explains the cause of many small and mysterious manufactories which we so frequently discover, where least expected, in crowded and obscure neighbourhoods. One of these little industries is very common, and consists in rendering all kinds of refuse, fat, and dripping, the product of which, under the alterative influence of a voyage from Brewer's Quay, London, to Rotterdam and back, undergoes transmutation into prime Dutch butter. The "Presiding Genius" of this same quay could make interesting revelations with respect to the chemistry of many articles of human food, both liquid and solid, producing an impression upon the mind of the very successful application to the science of human food of the ancient art of Alchemy."

We commend the fact here related to all whom it concerns.

Reviews.

ON THE MANAGEMENT OF LABOUR IN CONTRACTED PELVIS. By William H. Jones, M.D. Paris, M.R.C.S.Eng. London: Hardwicke.

This little volume comes before us stamped with a recommendation that should secure it attention, for it is an English version of the author's Inaugural Thesis for the Paris Faculty of Medicine, which obtained the first prize awarded by the French Minister of Public Instruction. It contains the result of eight years hospital practice in Paris, and a very fair summary of the differences between English and French practice in those painful cases. In three years, Dr. Jones attended at one hospital, *La Clinique d'Accouchements*, more than a thousand obstetric cases. Out of this number there were 51 cases of distorted pelvis, statistics of all of which are contained in the work before us. The facts, therefore, upon which he offers his comments are sufficiently numerous. With a very large experience he treats the many questions involved with a modesty that does him credit, and a clearness and brevity which will render his little work readable, when more pretentious volumes are thrown on one side.

The questions involved in cases of this kind are peculiarly painful and harassing; yet, every one who practises midwifery may, at any moment, be summoned to form an opinion. The variety of practice in England and France is very striking, and the author seems to conclude that there is no reason why both methods should not be found at times suitable. He has done his French *confréres* a good turn in so clearly placing our practice before them, and now we are grateful for the condensed information he gives us on such unimpeachable authority as to French practice. He seems equally at home with the authorities of both countries, and quotes each with impartiality.

Having given a series of statistics of the 51 cases, he asks, in separate sections, what ought to be the conduct of the accoucheur when the conjugate diameter of the pelvis is narrowed, but not under 3½ inches? When it is between 3½ and 3 inches? When it is between 3 and 2½ inches? and when it is under 2½ inches? In each case the question is answered with as much clearness as can be expected, and the proceeding to be adopted discussed with ability. It will not be expected of us, in a notice of this kind, to enter into the arguments offered, and we need only briefly sum up the conclusions arrived at. Dr. Jones thinks: 1. In slight contraction, nature may often suffice to effect delivery if the presentation be favourable, but this becomes unlikely, as the measure approaches 3½ inches. The forceps should be used soon after the os is fully dilated. 2. Between 3½ and 3 inches, the child's life at full term is in danger. Unless the child be unusually small, something must be done. Firstly, the forceps may be tried. This plan failing, version is to be resorted to, and this may require embryotomy to complete delivery. 3. Between 3 and 2½ inches, natural delivery is impossible. The forceps may be tried in case the child should be preternaturally small, but it is better at once to perform version, after which embryotomy is almost sure to be required. 4. Under 2½, a full grown child cannot pass *per vias naturales* without mutilation. Embryotomy is therefore recommended to aid which version may be performed. The prognosis for the mother is very serious, especially as the measurement approaches 2 inches. Under this size, even with mutilation of the fœtus, delivery is very dangerous or impossible, and the Cæsarian section becomes needful, making the chances of the mother less, but giving the child some.

Dr. Jones relates fully eight very instructive cases from his own notes, and cites four others from Dr. McClintock's work; he gives in a table a brief account of the 51 cases he attended in the *clinique* at Paris. Case 12 has interested us much. It was the smallest diameter Dr. Jones has met with, being only 1½ inches. Many fruitless efforts at cephalotripsy were made. On consultation, M. Dubois held that it was better to wait for a time, as he was of opinion that if Cæsarian section were performed the patient would die under the operator's hand. She was accordingly left, but in four hours she died undelivered. Dr. Jones mentions, *apropos* of this case, the *forceps-scie*, of M. Vanheuvel, and the cranioclast of Sir James Simpson, as instruments not well-known in France, and of the latter he furnished the French profession with a description in his original thesis.

We hope we have said enough of the contents of Dr. Jones's work to induce all interested in the subject to read it. They will find its style agreeable, and it abounds in useful information in the most condensed form. The book has the great merit, in these days of huge volumes, of brevity. It is only about 60 pages, but is, for this very reason, likely to be still more thoroughly studied.

TROUSSEAU'S LECTURES ON CLINICAL MEDICINE. Translated and edited by P. Victor Bazire, M.D. Lond. and Paris. London: R. Hardwicke.

We have before us the third part completing the first volume of this valuable work. It contains lectures on angina pectoris; on Graves's disease, so-called by the Graves of France in compliment to the Trousseau of Great Britain, who did so much to elucidate this exophthalmic goitre; on asthma; on whooping-cough, and on hydrophobia. It is only needful to name such subjects as these, to create in most readers a desire

to read the lectures of the great French clinical teacher. Those who are familiar with the language in which they were delivered have long ago studied Trousseau's views in the original. For those who have not the pleasure of knowing French, we have only to notify that Dr. Bazire has provided a free translation, which reads less like a translation than almost any that can be named. No doubt each language being almost equally, the mother tongue of the accomplished translator had had much to do with this result. There is a feeling of sad regret that cannot be shaken off about this volume. At least, the present writer has not been able to forget, that within so short a time after the death of Trousseau, his pupil, admirer, and translator, should have been so suddenly snatched away from us in the midst of this work which was evidently to him, a labour of love, and when he might have naturally looked forward to many years enjoyment of that prosperity for which his talents pointed him out as deserving and as likely to obtain. Besides the subjects named, there is a lecture on Cerebral Rheumatism, which we may mention more particularly for the sake of drawing attention to the notes of the lamented translator.

They are distinguished by much learning and research, and when we have said they are worthy of the place they occupy, we have said all that is necessary. The work is got up in an admirable form, and we trust the publisher may find able hands to which to commit its completion. The first volume now being complete, and by one translator, we would suggest that it be bound and sold separately. The remainder could be brought out by another translator, and sold either with or without Bazire's volume.

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"Salus populi suprema lex."

WEDNESDAY, NOVEMBER 6, 1867.

CEREBRO-SPINAL MENINGITIS IN AMERICA.

In various numbers of this journal, during the current year, we have adverted to the purpuric epidemic lately prevalent in and near Dublin; and our readers are, doubtless, familiar with many of the original contributions which we published on the same subject.

We have now before us a remarkable number of an American work, entitled, "Publications of the Massachusetts Medical Society." It consists of a report on "Spotted Fever or Cerebro-spinal Meningitis in the State of Massachusetts" forming No. 1. of Vol. II., published at Boston, U.S., in the present year.

This book commences with statements to the following effect:—More than half a century since, an epidemic called "spotted," or "petechial," fever prevailed in Massachusets, and in other parts of *New England*. It commenced in the town of Medfield, where, between the 8th and 31st of March, 1806, nine cases occurred, and all proved fatal. It then showed itself in other parts of the State of Massachusets, and also of New England, subsequently extending to New York, Pennsylvania, and Canada; also to Kentucky, North Western Virginia, and, finally, to the southern extremity of the United States.

In most of the places indicated in the report, the country is "inland, and very elevated, having many fresh water ponds and streams." In Cambridge-port (Middlesex county), "the disease was mostly confined to land which had been recently salt meadow, and intersected by foul ditches." In Boston itself the disease occurred chiefly "near the flats and water;" while, on the whole, it was found to have occurred in seasons differing in their meteorological character, and in places very various in their soil and climate.

The more prominent symptoms of this epidemic were: sense of lassitude, great prostration, faintness at stomach, sinking of pulse, coldness of surface, occasional chills, pain in the head, coma, delirium or convulsions, vomiting, "in some instances approaching that of cholera morbus," the appearance of *petechiæ*, or spots of effused blood beneath the epidermis. Severe itching of the surface. Sore throat was a frequent premonitory symptom. "Redness of the throat and aphthæ were sometimes observed."

The eruption was not constant; and its character, when found, was various, appearing as it did in one of these forms—red spots only, miliary eruptions, blotches, vesicles, "blood blisters," pustules, purpura, petechiæ, or vibices. "Sometimes there was an appearance like measles." The spots did not rise above the surface, nor recede upon pressure. They were found on the face, neck, and extremities, "and frequently over the whole body."

The invasion of the disease was, for the most part, sudden and violent. In its course all the functions of the body were more or less interrupted, and often some of them were entirely suspended. The "access" often consisted of shifting pains. The patients suddenly felt a pain in one joint or one limb, or in a finger or toe, or in the side, stomach, back, or head. This sensation was at times likened to the stinging of a bee.

All observers concurred in stating that every symptom was not present in every case. "On the contrary, there was great variety in the symptoms, and great variety also in the order in which they occurred." Spasms, "resembling hysteric spasms," were also found, as was *opisthotonos*. Relapses were frequent, but rarely fatal. Fatal cases terminated in from twelve to forty-eight hours. "In favourable cases reaction took place, and a mild fever of uncertain duration followed." The disease was very fatal at first, and then diminished in mortality as the epidemic progressed; it was not believed to be contagious, and women in different stages of pregnancy recovered from it. The treatment consisted in active stimulation—some practitioners giving a quart of brandy in eight hours; opium was freely used by some, and blood-letting and antiphlogistics by others.

As to the practical question—"What was the disease?" the writer answers, "it is easier to declare what it was *not* than what it was." It was not scarlatina, or augina maligna, or typhoid pneumonia, nor British typhus. "The Committee of 1810 came to the conclusion that their spotted fever was fever combined with internal inflammation, and that the inflammation was commonly erysipelatous; frequently of a character intermediate between erysipelatous and phlegmonous." In 1866 this epidemic again visited Massachusets, and among information given in this report, is a valuable comparative summary of the two epidemics, under so many as thirty-four heads.

There is a very remarkable correspondence here elicited between the two invasions of disease; their symptoms, modes of attack, and results.

The most important difference between the two would appear to be that opisthotonos was not so frequently noted by the older observers as by their successors in 1866.

A "Historical Notice of the Disease," of considerable value, follows a dissertation on the correspondence between the American epidemics and the French "cerebro-spinal meningitis;" and various conclusions are drawn. Of these, the chief are—that the disease has prevailed sporadically, endemically, and epidemically; that it is not exclusively, or, *par excellence*, a *military* disease; that it is not one peculiar to large cities, and that it is non-contagious.

A large number of tables and many pages of useful statistics, and information about the disease elsewhere than in America, will be found in this volume, as well as a good discussion on its pathology and nomenclature. All the known opinions on the pathology of this disease are fairly and clearly given, and as the book is but a report, the question is not attempted to be settled.

The nomenclature *waits on the pathology*, observes the writer of the report, who winds up his most useful book in these terms: "With those who hold that the disease, on which we have been reporting, is a form of *typhus*, it has already been generically named. The views of some would, perhaps, be comprehended under the term *typhoid meningitis*. Others would seem to consider 'spotted fever' a peculiar *toxæmia*. But, till the pathology be better settled than at present, we shall probably continue to speak of '*spotted fever*,' or '*cerebro-spinal meningitis*.'"

Notes on Current Topics.

DOCTOR DISRAELI.

The Chancellor of the Exchequer has, as we intimated last week, paid his visit to Edinburgh, and been honoured alike by "town and gown." In returning thanks to the University for the honorary degree of Doctor of Laws conferred upon him, he spoke in favour of such bodies being represented in Parliament, and even went so far as to intimate that he should be glad for the member for the Edinburgh University to contest with him the highest honours of public life. He declared that his party always looked with favour on academical constituencies. In thanking the Lord Provost for the freedom of the city, he spoke decidedly in favour of Scotland having more members. So far so good, but we miss the practical conclusion. Mr. Disraeli did *not* say that he would resist to the utmost the proposal of a small, but too active faction, to limit the academical representation of Scotland to one member for the four Universities, instead of the two members he himself proposed last session. Moreover, he did *not* mention a subject to which we have several times reverted, and which was uppermost in the minds of many graduates who perused his speech in the morning papers in the hope of meeting with some distinct statement. He did *not* say that he and his party intended to confer a vote for *alma mater* on every graduate. He did *not* intimate that he was no party to the suggestion to let the *Senatus Academicus* return the member, and so erect a constituency beside which the shame of old Sarum should be forgotten. Finally, he did *not* repudiate the notion of making his plan of grouping two Universities together a means of doing a crying injustice to one by excluding her non-residental graduates, and so diminishing the constituency, and virtually placing the election in the hands of a few self-elected officials.

We trust that the Chancellor of the Exchequer will never suffer his name to be associated with such one-sided and unjust propositions. If unprepared to carry out the opinions he so well advocated by conferring larger representations on the Universities, and we have already advocated their having one member each, let him at least not take with one hand what he gives with the other. Let him abide by his own first proposal, remembering that for every graduate who is deprived of a vote by a side wind there, will be a foe to his scheme and to his party, and a foe too, who, wherever he may dwell, is sure to be, from his education and his position as a graduate, a centre of influence. The Right Hon. gentleman is now a graduate himself (*honorary*). We appeal to him as such, to see that every graduate (by examination) shall have as freely as himself the University franchise.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

From the accounts recently published we might imagine that this corporation is not in a very satisfactory financial condition. A good deal of money is, as every one knows, received for its diplomas, but the College has not a very substantial balance in the bank. Out of nearly £10,000 paid by the profession for these diplomas more than £3600 goes to examiners. Out of the remainder the great Hunterian Museum does not absorb £2000. This leaves a very respectable sum for ordinary college expenses, besides which there is the interest on funded property. The disbursements do not indicate any great expense incurred on behalf of the profession. What does the College do with its money? Does it consume all on its own officials? Has it nothing to spare for the honour, or the welfare; or, at the least, for the amusement of the many who have paid so many guineas into its coffers at a time of life they could so ill afford it? Its sister, the College of Physicians, is poorer, but it gave its members a soirée, which at least showed some sensibility of its debt.

ST. ANDREWS GRADUATES' ASSOCIATION.

At the forthcoming first anniversary session of this association, the council has provided a very superior bill of fare. The first day will be mainly occupied with politics, the two questions to be discussed being the Franchise and the Representation on the Senatus of the University. For the next day the following scientific papers are announced:—"Report on Ozone," by Dr. Day Stafford. "Tubercle in Lower Animals," by Dr. Edwards Crisp. "Septicæmia," by Dr. Wynn Williams. "Nature and Antecedents of Phthisis," by Dr. C. Drysdale. "Gastrotomy in Extra-uterine Pregnancy," by Dr. D. Lloyd Roberts, Manchester. The President's (Dr. Richardson) Address. "Report on Disinfectants," by Dr. Procter, York. "School Dietaries," by Professor Lyon Playfair, C.B., Edinburgh, and various other papers. The session will be closed by a dinner.

THE PUBLIC HEALTH.

We have again to report that the mortality of London was under the average—in this week by the number 80. There were 238 deaths from zymotic disease. Typhus proved fatal to 45 persons, and diarrhœa to 27. There were only 8 deaths from small-pox, but 31 from measles, 36 from scarlatina, and 25 from whooping-cough. The exact num-

ber of deaths in London in the week (the forty-third of the year) was 1239, the average corrected for increase of population being 1319.

The annual rate of mortality for the week was 21 per 1000 in London, 24 in Edinburgh, 20 in Dublin, 22 in Bristol, 25 in Birmingham, 25 in Liverpool, 26 in Manchester, 31 in Salford, 23 in Sheffield, 23 in Leeds, 24 in Hull, 24 in Glasgow, and 32 in Newcastle-on-Tyne.

FARNHAM WORKHOUSE.

Last week we had occasion to refer to the iniquitous condition of this institution, and we still find that it is not likely at present to lose its perverse notoriety. Suspicion had been thrown upon their medical officer, Dr. Powell, in the case of a death on which an inquest was held. The coroner, in consequence, adjourned the inquest and requested Mr. Eager, one of the surgeons of the Royal Surrey County Hospital, and Medical Officer of the Infirmary of Guilford Union Workhouse, to make a post-mortem examination of the body, that the truth might be ascertained. The result was that their medical officer was fully exculpated, and the following disclosures were made :—

At the rear of the infirmary building there is a tank about 10 ft. by 14 ft., uncovered and filled with, what Mr. Eager emphatically calls, "stinking sludge," the surface studded with bladders of poisonous gases. This is emptied once in six months, and the man on whom the inquest was held was helping to do it. He was an epileptic, and a fit seizing him he fell in. He was rescued in the course of three or four minutes, and when taken out was insensible. This occurred at eight in the morning; but the medical officer was not informed of it until 11·30 A.M., when he was properly attended to. At night he was removed from an airy room into one of the crowded sick wards, where, before the next morning, he died.

Opportunity was given to Mr. Eager to see a part of the infirmary. We have not space to record the particulars of what he saw, but give his concluding sentence :—

"Altogether—and I have had considerable experience in hospital infirmary construction and management—I cannot conceive a worse-arranged building, a worse-managed one, or one more thoroughly unfitted for the reception and treatment of the sick than the infirmary of the Farnham Union Workhouse."

But the iniquity of the management is not yet full. We quoted from Mr. Wightman last week, and we do so again to-day, first giving the particulars of the case to which he refers. A lad, 20 years old, was smitten with small-pox on the 2nd of last month. He applied to the assistant-relieving officer at Aldershot for medical aid, which was granted, and the medical officer advised him, as he had no friends, to go to the workhouse. An order was given him, but he was refused admittance by the relieving officer at Farnham. The lad, after walking twelve miles, and losing his way, at length got home—such a home as it was—and there he lay for considerably more than a week in a room only 12 feet square and 8 feet high, with three beds, and occupied by two other men besides himself. Mr. Wightman says :—

"The assistant relieving officer visited the lad on the 5th of October, and gave him an order for 3lb. of mutton, and goods amounting to 2s. 6d. He also gave him an order for medical attendance. With this exception, and the attendance of the medical officer, no other relief, either in money or goods, was supplied to him by the parish authorities, and had it not been for his two companions, who supported him out of their miserable wages, and tended him when their day's work was done, he must have perished."

Both these cases, and both these letters, from which we have taken them, seem to prove that now more than ever the principle of workhouse management is embodied in Hood's well-known line :—

"He's only a pauper whom nobody owns."

It is high time that, in a country like ours, the richest, the most prosperous, and the most enlightened in the world, a full and searching enquiry should be made into these things, so that the unfortunate and wretched amongst us may be treated more in accordance with the philanthropy which it is our bounden duty to obey.

THE ABYSSINIAN EXPEDITION.

It is said that Mr. Markham, F.R.G.S., will accompany the expedition. No one will dispute the ability of this gentleman, whose observations on cinchona have earned him a wide reputation; but we must regret that a larger force of scientific men should not have been sent out. Many valuable facts will, no doubt, be accumulated by the medical staff, but these officers will have other imperative duties to attend to, and it seems a pity that the opportunity should not be utilized for a full investigation into this almost unknown country. Mr. Dufton would have us make an attempt to colonize in Abyssinia, and would have us believe that after the lowlands have been passed there is an Eldorado beyond.

It would surely be worth while to ascertain precisely the nature of the country and its productions.

THE WEED.

We have several times, lately, had occasion to mention the subject of tobacco. It is not long since we reported that Mr. Hutchinson, of the London Hospital, entertained a decided opinion that smoking was injurious to the eyes. The opinions of other observers are tolerably well-known. The last utterance, to which we may refer, is that of Dr. John Murray, who, at a meeting of the Middlesex Hospital Medical Society, last Thursday week, read a paper on Tobacco, in which he endorsed the conclusions of Dr. E. Smith, that smoking diminished the number of beats per minute of the pulse, and also acknowledged that the same habit is likely to bring on amaurosis.

THE DREADNOUGHT HOSPITAL.

We have already informed our readers that the Seamen's Hospital Society has been obliged to decline the offer of Queen Mary's quarter in Greenwich Hospital, tendered by the Admiralty for the accommodation of the hospital. The reason assigned by the society was the expense which the necessary alterations would entail. For forty-six years the accommodation for the hospital has been provided by Government; surely the support of an institution so valuable to the naval reserves of the kingdom would be a most legitimate application of public funds. Greenwich Hospital is in receipt of an annual revenue of £150,000, derived from a fund in hand of nearly £3,000,000, principally accruing from parliamentary votes, and from vast estates in the counties of Cumberland and Westmoreland. The only difficulty under which the administrators suffer is the impossibility of spending this vast annual revenue. And yet, the only institution for the medical relief of sailors is to be confined to a worn-out ill-ventilated hulk anchored in the thick of the Thames miasms.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

In another column we give a report of the quarterly meeting of this Association, held on the 31st ultimo. The two subjects which principally occupied the meeting are of considerable importance, viz.—the tenure of office by Medical Officers, and the payment of their services. With respect to the first, it appears that very many of the Medical Officers in the Metropolitan District are elected annually. Others have served their respective Boards for many years without re-election, and are nevertheless held to possess only annual appointments. The Association desires to see the General Order of the Poor-law Board, which makes all medical appointments in *Unions* permanent, issued to the *parishes* likewise, and we think their desire is a very proper and natural one. Should the Board comply with it, they will only be carrying into more complete effect the recommendation of the Select Committee of the House of Commons, that "every Medical Officer should hold his appointment until he resign or die," &c. At the present moment, this question has a more than usually wide significance. The Metropolitan Poor Act is coming into operation, and it cannot be doubted that it will become necessary for the Poor-law Board to determine some of the existing contracts with Medical Officers under the 46th and 59th clauses. If the Medical Officers deprived of office in this manner should be permanently elected, they will doubtless receive liberal compensation. But it is questionable if any of the *parish* Medical Officers, elected annually, or not elected subject to the provisions of the General Order before referred to—and they form a majority—will receive any compensation whatever. And yet many of those gentlemen have held office for long terms of years, under very disadvantageous circumstances. The subject is a very proper one for discussion, and we trust it will receive respectful consideration from the Poor-law Board. The second subject of discussion was not less important, dealing, as it does, with the remarkable inequality of payment for the same services, in different parishes and Unions, which was shown to exist. Two cases were cited as illustrative, viz.—those of St. Pancras and St. Marylebone. In each of these parishes, the Guardians have elected three Medical Officers. The St. Pancras Board have allotted £400 per annum for their payment, and the St. Marylebone £780. The salaries, it must be remembered, do not come out of the local rates, but are paid in equal proportion out of the Common Poor Fund, and by Government. The Association makes the very natural request that the Poor-law Board, as the authors of the Bill which created the Common Poor Fund, and as a department of the Government, should take the question of payment of Medical Officers into their own hands, revise all the salaries, and direct such an increase in them, upon an uniform basis, as may appear to them to be equitable. By no means an extravagant request, when it is remembered that the late President of the Board (Mr. Gathorne Hardy,) and Inspectors Farnall, E. Smith, Corbett, and Markham, have all admitted the insufficiency of the present salaries.

We were glad to observe that the meeting was well attended, and that the proceedings were conducted in a spirit of moderation and dignity. This Association has already done good service to the cause of Poor-law Medical Reform, and has fairly earned for its members, and for the larger body it represents, the favourable consideration of the Central Board. They ask no more than should, in strict justice, be conceded to them.

CHORAL GRACE AT TRINITY COL., DUBLIN.

We have been favoured with a copy of a nicely executed card, containing on the one side *The Grace before Meat*, set for two tenors and two basses by the Rev. J. P. Mahaffy, M.A., a Fellow of the College, and Secretary of the Dublin University Choral Society; and on the other side, *The Grace after Meat*, set for the same voices, by Dr. Stewart, Professor of Music in the University of Dublin.

It will be in the recollection of many of our readers, who had the great pleasure of dining at Trinity College during the late session of the British Medical Association, that they heard with their own ears these very Graces which added so much to the elegance of the entertainments referred to. We are informed that copies have been presented to several of the guests, but for those who may not have been so fortunate, we give, herewith, the *ipsissima verba*, which have been in daily use in the Common Hall of Trinity College for centuries.

Grace before Meat.

"Oculi omnium in Te sperant Domine, Tu das üs escam eorum in tempore opportuno. Aperis Tu manum Tuam, Et imples omne animal benedictione Tua.

"Miserere nostri, Te quæsumus Domine, Tuisque donis, quæ de Tua benignitate sumus percepturi, benedicito, per Christum Dominum nostrum.—Amen."

Grace after Meat.

"Tibi laus, Tibi honor, Tibi gloria, O beata et gloriosa Trinitas, Sit nomen Domini benedictum et nunc et in perpetuum. Laudamus te benignissime Pater, pro serenissimis, Reginâ Elizabethâ hujus Collegii condatrice, Jacobo ejusdem munificentissimo auctore, Carolo conservatore, ceterisque benefactoribus nostris, rogantes Te ut his Tuis donis recte ad gloriam utentes in hoc sæculo Te una cum fidelibus in futuro feliciter perfruamur. Per Christum Dominum nostrum.—Amen."

As to the music, which is not used at ordinary college dinners, we can speak from happy experience, that it was very good. On the card it is printed in short German score, the two basses being placed, one above the other, on the lower stave; the two tenors, in like manner, on the upper stave, which however, has the signature of the treble cleff. Why this last should be as it is we know not; nor can we fancy why the musical notation is that modern secular notation which revels in crotchets, quavers, and semi-quavers, instead of in the old, and, therefore, more stately and suitable form of breves, semi-breves, and minims. Considering that the singers of this kind of music are always first-class men in their line, we think that the tenor parts might have been written in the tenor cleff. But they who ate the dinners had the best possible reason for saying Grace before and after them, and were in no mood to find fault with quavers or semi-quavers, or anything else served up to them on those most hospitable and long to be remembered occasions.

MEDICAL CORONERS.

North Somerset has obtained a medical coroner in the person of Mr. Craddock, of Shepton Mallet. There were three other candidates, all medical men, but they all retired in favour of Mr. Craddock, who has previously given satisfaction as deputy coroner. We are glad that our North Somersetshire friends are alive to the propriety of electing medical men to this office, and only wish the same

spirit were more general in the country. What can be more absurd that an inquiry into the cause of a death, presided over by an official who has no medical knowledge?

THE DEATHS IN THE UNDERGROUND RAILWAY.

The Coroner for Middlesex, we should judge, must by this time feel somewhat abashed. The sensation story with which he afforded food for some of the papers in the dull season has been more completely answered than he could well have anticipated. From the first, we refused to countenance the alarming prophecies that were retailed by writers who evidently possessed no knowledge of chemistry. The nonsense that was written upon the subject was, in fact, almost as surprising as the suggestion of the coroner on the case in question. It is satisfactory to the public that the company have prosecuted the enquiry so fully, and have thus been able to demonstrate the recklessness of the assertions that have been made.

Any one acquainted with the probable impurities of the air of tunnels, and knowing how to test for them, would have been more cautious than some who have undertaken to instruct the public respecting the atmosphere of the tunnels of the "underground" line. Sulphurous acid may indeed be constantly detected by the nose at various stations of this railway. It is present in sufficient quantity to readily excite coughing, as we have frequently experienced—though to a less degree since the late improvement in the ventilation was made. An observant person, however, should have noticed that the "posters" displayed by advertisers at the several stations were not injured by this gas, nor was the paint—facts which would suggest that the quantity could not be large; and the report says that it may have these effects in a less proportion than 1 to 100,000 parts of air.

As to carbonic acid, it has long been known that our public buildings, and even our private sitting-rooms, are apt to contain an excess, and it now turns out that the average in the railway tunnels may favourably compare with other places. We are compelled to postpone the report on the subject presented at the inquest last Wednesday, by Drs. Bachhoffern, Letheby, and Whitmore, which will be satisfactory to most persons, forming, as it does, a conclusive reply to every point raised by the coroner. From the facts given in evidence, it would have been far more reasonable to have suggested that the woman died from tight lacing.

We may add here, as possessing more than passing interest, a statement of the relative impurities of the atmosphere in various rooms, which may prove useful to some of our readers for reference, and which has been collected from several sources :—

AMOUNT OF CARBONIC ACID PER 10,000 OF AIR IN DIFFERENT PLACES.

1. *Cities and Towns.*

London	from 2·8 to 4·3	Average	3·4
Manchester	„ 4·9 to 15·0	„	5·4
Munich	... ...		5·0
Madrid	„ 3·0 to 8·0	„	5·2
Paris	„ 3·6 to 5·1	„	4·9

2. *Places of Public Resort.*

Court of Chancery (doors closed)			19·8
Do. Do. (doors open)			4·8
Chamber of Deputies, Paris			25·0
Theatres (London)	7·6 to 32	Average	14·9
Do. (Manchester)	10·2 to 27·3	„	14·8
Do. (Paris)	23 to 43	„	33·0

3. *Dwelling-houses by Day.*

From 5·4 to 12·7 Average ... 7·8

4. *Dwelling-houses by Night.*

In a Study, near Table	11·8
Do. Do. near Ceiling	15·6
Bedroom at Night	28·0
Do. Do. (window open)	8·0

5. *Dormitories.*

At Salpetriere	80·0
Another at ditto	58·0
Workhouse Ward	125·0
Lodging-house in City	100·0

6. *Schools by Day.*

Various in France	27 to 47	Average	36·0
Do. in Germany	20 to 56	Average	39·2
Do. in England	9·7 to 31	Average	21·5

7. *Mills and Workshops.*

From 28·3 to 30·0 Average ... 29·1

8. *Barracks at Night.*

From 11·9 to 14·2 Average ... 12·8

9. *Cornish Mines.*

Average of good Mines	8·0
Do. of bad „	190·9

10. *In Expired Breath.*

From 356 to 500 Average ... 425

11. *In Room with Chafing Dish.*

1400

THE SOCIETIES.

Most of the Medical Societies are now in full session. On Monday the Epidemiological held its first meeting, when papers were read by Dr. Dickson, of Constantinople, and Dr. Short, of Madras, the former on the plague at Karbela, the latter on the transmission of variola from animals to man. The same evening, Mr. Spencer Watson furnished a paper to the Medical Society of London on some obscure surgical diseases of the face.

To-morrow evening, Dr. Drysdale is to renew, at the Harveian Society, the subject of syphilis, by a review of the recent debate in the Société de la Chirurgie de Paris.

SLAUGHTER-HOUSES FOR LONDON.

We hope the scheme of the Corporation of London for erecting new slaughter-houses will not fall through. The £36,550 proposed to be thus expended may confer an inestimable benefit on the metropolis. The caution exhibited in visiting the *abattoirs* of Paris and other places before deciding on the plans, speaks well for the hope we indulge of seeing buildings fit for the purpose erected. It will be no slight benefit for the driving of cattle through the streets to be reduced to the minimum, but there are many other reasons which should urge the authorities to carry out the proposal as rapidly as possible. We may also add that the outlay is not likely to be unremunerative. The gentlemen who undertook the tour of inspection, after visiting several continental cities, have come to the conclusion that these *abattoirs* are inferior to the buildings used for this purpose in Edinburgh. We are glad that the northern capital is to be made the model, although we have seen some continental towns which, in some of their arrangements, seem to leave nothing to be desired.

The London slaughter-houses must, of course, be on a larger scale than those of Edinburgh. The site selected is on the eastern side of the Metropolitan Cattle Market, close to the Great Northern Railway, with which the buildings will, no doubt, eventually be connected, so as to admit of the meat being rapidly distributed, by means of the several lines in connection, to any part of town or country.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

In their Quarterly Report, dated October 1867, after referring to the case of Mr. Bennet, and other topics that have lately occupied our attention, the Council go on to state the dangers to which many Officers are exposed under recent regulations in the following terms :—

"Your Council without entering into the question of the legality or equity of disturbing the old appointments—without enquiring whether the order directing the new appointments is or is not contrary to the spirit and letter of the new act, nay, even granting the necessity of making re-appointments under the new *régime*—maintain that in common fairness the General Order of May 25, 1857, based as it is upon the recommendation of the select committee, should have been issued to the *parishes* as well as the new Article 191, and not the old one, which, as to the six hundred unions, was rescinded twelve years ago. In a word, no difference should have been made between unions and parishes. Had the re-appointments been made subject to the provisions contained in the above General Order, the St. Pancras scandal would not have occurred, and there would have been no danger as there now is—unless a remedy be applied—of a repetition by other boards, and at no distant time, of the proceedings which have brought discredit upon the new board of guardians of that parish. It is probably not too late even now to repair the unfortunate omission which your Council would fain hope was accidental ; for to put it intentionally in the power of guardians to elect their Medical Officers annually, and dismiss them at pleasure, would be a retrograde step of evil augury for the future welfare of the sick poor, as nothing could more effectually cripple the usefulness of those Officers. Your Council cannot believe that the Poor-law Board would voluntarily sanction an arrangement so contrary to the spirit of the resolution of the select committee at any time, and much less at the present time when the board itself has just been made permanent by a measure in favour of which the Association petitioned the House of Lords.

"The question is one of vital importance to many Medical Officers, and cannot be left in abeyance.

"Your Council beg to direct attention to another question of general importance, viz., the payment of Medical Officers. Art. 177 of the Consolidated Order provides that 'the guardians shall pay to the several officers appointed to any office under this Order such salaries or remuneration as the Commissioners may from time to time direct or approve.'

"In like manner the 25th sec. of the Metropolitan Poor Act, 1867, enacts that the salaries of the paid officers (of the asylums) 'shall be such as the Poor-law Board may from time to time approve or by order direct.'

"In practice the Poor-law Board, hitherto, have been contented to 'approve' the salaries fixed by the guardians, although the late president and many others, high in office at the board, have admitted the inadequacy of the salaries so fixed and approved. Your Council have some reason to fear that this unsatisfactory practice will be permitted to continue, notwithstanding that, in future, the salaries will be paid out of the Common Poor Fund, and half the amount, as heretofore, be repaid by Government.

"As an instance of the unsatisfactory working of the present system your Council would draw attention to the recent action of two boards of guardians in this matter.

"The St. Marylebone Guardians have just appointed three Medical Officers for their workhouse. To the senior or visiting Surgeon—free to practice privately—they have granted a clear annual stipend of £500. The House-surgeon is to receive £190, and the Surgeon dispenser £90, total £780.

"At St Pancras, with a larger workhouse and more sick, the guardians have been contented to tax the public funds to the inadequate amount of £400 per annum for the payment of the same number of *resident* Surgeons, whose whole time is to be devoted to their duties, and who are to receive for their services, respectively, £200, £100, and £100 yearly!

"It is hardly necessary to condemn in terms a system under which such striking anomalies as the above can find place!"

THE ANNUAL MEETING

of the Association was held on Thursday last, Dr Ryan in the chair. Present—Dr. Thomas, Dr. Powell, Dr. King, Dr. Rogers, Dr. Dudfield, Mr. Dodd, Dr. Richardson, F.R.S.; Dr. Fox, Mr. Hutchinson, Mr. Deprey, Dr. E. Jones, Dr. Smyth, Dr. Dixon, Mr. Bennet, Dr. Welch, Mr. Frost, Mr. Guazzaroni, Mr. Prowse, Dr. Simmonds, Dr. Saul, Mr. B. Baker, Mr. Vinall, &c. Resolutions to the following effect were passed :—

Moved by Dr. Richardson, F.R.S.; seconded by Mr. Vinall, supported by Dr. Dudfield and others, and passed *nem. con.*:—

"That the Association, having taken into consideration the position of the Medical Officers of *parishes* to which the General Order of the Poor-law Board dated 25th May, 1857, has not been issued, and who are, therefore, not of right entitled to permanent appointment; and that the resolution of the select committee of the House of Commons in 1855—to give effect to which the said General Order has been issued to all *unions*—recommended that '*every* Medical Officer should continue in office until he may die, resign, &c.;' requests the Council to memorialize the Poor-law Board to give complete effect to the said resolution by issuing the General Order to all *parishes;* (and, further, if necessary, to petition the legislature on the subject.)"

Moved by Mr. B. Baker, seconded by Dr. Belcher, supported by several speakers, and carried unanimously :—

"That the Association, taking into consideration the fact that the salaries of the Medical Officers in the metropolitan district will in future be paid in equal parts out of the Common Poor Fund and by Government; and that it has been admitted by the late President of the Poor-law Board, by the inspectors of the district, and by all other competent authorities, that the salaries hitherto awarded to such Officers by the guardians are altogether inadequate, requests the Council to memorialize the Poor-law Board that they would be pleased to take the question into their own hands and revise all salaries, and direct such increase thereof, upon an uniform basis, as to them may seem just and equitable."

A vote of thanks to the Officers and Council was moved by Dr. Simmonds and carried by acclamation.

After the meeting much animated conversation took place respecting the Metropolitan Poor Act, the dispensaries, supply of medicines, how contracts which clash with the new Act should be dealt with. The proceedings were most enthusiastic, and the attendance large and influential.

BRITISH PHARMACEUTICAL CONFERENCE.

(Continued from page 414).

ON A NEW DOMESTIC FOMENTING AND VAPOUR BATH.

Mr. Reynolds introduced to the notice of the meeting a vapour bath, having a special provision for applying steam fomentation. It is the invention of Mr. R. H. Bollans of York.

From the unsatisfactory nature of the old plan of fomentation, by changing a series of cloths wrung out of hot water, when the temperature is mostly too high or too low, or the patient suffers a chill during the operation, there must be room for the improvement; and it has already received many testimonials from medical gentlemen and others who have used the apparatus.

The vapour bath, &c., is packed in a compact japanned box, and is sold at the moderate retail price of thirty-five shillings.

REMARKS ON A SPECIMEN OF SEA-WEED CHAR.—BY EDW. C. C. STANFORD, F.C.S.

Mr. Stanford introduced to the meeting an interesting specimen of charcoal, obtained by the carbonization of tangle. This substance consists of the long stems of *Laminaria digitata*, which are thrown up in great abundance on the western shores of the outer Hebrides. These when carbonized, swell out into a highly porous charcoal, about three times their original volume.

The char contains about 40 per cent. of salts, free from sulphides and very rich in iodine.

It generally contains about 15 per cent. of water, which it is very difficult to separate, the charcoal having a most powerful affinity for moisture.

Attention was called to the remarkable analogy between the chemical composition of this char and that of animal charcoal, which appeared to class it with that substance, and distinguish it from any char of a vegetable origin. This char cannot be used for sugar refining, on account of the large percentage of carbonate of lime; but it possesses decolorising and deodorizing properties, superior, weight for weight, to the best animal char; tested with solution of caramel it decolorizes 25 per cent. more than animal char under the same conditions.

It has been subjected to continued filtration of the thickest

town sewage, for several months, without the least clogging, and its efficacy after this treatment remained unimpaired.

The tangle char was brought before the meeting as a cheap and efficient substitute for animal char in its applications other than that of sugar refining ; and its introduction excited an interesting discussion.

In a brief discussion in which Mr. MACKAY and Mr. YOUNG expressed much interest in the subject introduced, and sanguine hopes of its importance to pharmacy, amongst other uses.—Mr. STANFORD stated that he could supply the char at half the price of bone charcoal.

ON GRANULAR CHARCOAL.

BY WENTWORTH LASCELLES SCOTT, F.C.S., ETC.

For some years past the value of charcoal, for internal use, has been gradually more and more recognized, and probably it would have been employed to a still greater extent, but for some little difficulties in the way of its convenient administration.

The ordinary "lump" or "twig" charcoal is, of course, unsuitable, and even when finely divided is decidedly very unmanageable in teaspoonful dose.

One or two forms of charcoal paste and charcoal biscuits have been put before the public during the last few years ; but, as a rule, have generally been rejected as unpalatable, while the useful properties of the carbon itself are masked in these preparations by the fatty or other matters added to it. I believe I may truthfully claim the originality and priority as regards granular charcoal, as it is now many years since my first experiments were made with this preparation, with the kind assistance of my friend the late Mr. Frank B. Fowler.

Granular charcoal, when properly made, should possess a hard, compact structure, and a sweet and slightly aromatic taste ; it should not soil the fingers when dry, but must disintegrate very quickly without exhibiting any gritty particles in the presence of moisture ; further, its integral porosity is by no means destroyed, as good granular charcoal may absorb fully eight and a half times its volume of sulphuretted hydrogen at ordinary temperatures, and proportionate quantities of other gases.

It is to this very property of the absorption or liquefaction of gases by charcoal that I wish to draw your attention for a few moments. We all know that upon this alone, or very nearly so, depends the value of charcoal as a disinfectant, and as an oxidizer, in whatever way it be employed, and we are very generally acquainted with the fact, that its power of taking up many of the easily liquefied or more soluble gases is very great indeed.

Now, putting aside certain collateral points for the moment, we may state generally that charcoal is taken internally, for the purpose of absorbing and masking the action of any acidulous and soluble gases that may be present in excess, thereby preventing or greatly diminishing their injurious action ; granting its usefulness in this respect, the question immediately arises, why not sometimes reverse the proposition? Why should not charcoal be made the carrier of gaseous bodies suited for the treatment of certain forms of disease, but which under all ordinary methods, are either impossible or very difficult to administer?

My late experiments have been directed towards this question, and I am decidedly of opinion that charcoal, saturated with various gases, may hereafter become useful remedial agents. The subject is naturally one which cannot be treated lightly, and which requires some extended and patient labour for its proper development ; but as far as I have already gone, the results are, in my opinion, most encouraging.

In these experiments I have exclusively employed box-wood charcoal as a standard material, and I believe it to be about the best adapted for the purpose. When this had been raised to the temperature of ignition for the second time, a current of the particular gas or vapour it is desired to absorb is passed over it, with a gradually increasing pressure, until the retort and its contents are perfectly cold. By particular management the charcoal can be powdered, and even granulated without being denuded of the gas it has absorbed.

I am not yet in a position to offer a complete series of experimental results and deductions therefrom, bearing upon the therapeutical value of impregnated charcoal ; but perhaps the trial I am about to describe may not be deemed entirely without interest.

Three healthy young dogs were kept in a large chamber, specially arranged, at a temperature of about 70° F., and were made to breathe large and gradually increasing quantities of pure oxygen, for a considerable period (their diet also being carefully looked after), until such time as the heart-action and general appearance of the animals indicated that the oxygen had done its work, and that fibrinous depositions might reasonably be looked for. The animals were removed from the chamber, it being evident that a continued oxygenization would probably have been fatal to all ; one was simply set free, and fed as usual, but it died after about a fortnight ; a second was killed instantly, and upon being opened, and the heart divided, it was found that all the valves and a number of the cardiac vessels were more or less plugged with fibrinous concretions.

The third animal was fed and treated as usual, except that *dram* doses of granular *ammoniated* charcoal were administered, at first three times, and latterly twice a day. In six weeks the dog was not only living, but had recovered its usual health. At the expiration of another fortnight the animal was killed by a blow, and examined. The appearance of the viscera was natural, except a slight renal congestion, and the heart, on being opened, showed hardly a trace of fibrinous deposition ; it had *evidently been dissolved away.*

I hope to pursue the subject further at a future time.

REMARKS UPON THE USES OF BISULPHITE OF LIME IN PHARMACY.

BY WENTWORTH LASCELLES SCOTT, F.C.S., ETC.

I have undertaken to lay before the British Pharmaceutical Conference, in a few words, the results of some experiments instituted with the view of discovering a means of preventing the rancidity and decomposition to which various ointments and fatty preparations are liable, if kept for any length of time.

A series of specimens of freshly-made spermaceti and other ointments, cold cream, bear's grease, and simple lard, were placed in similar pots, and allowed to rest in a warm situation; a duplicate series, to which a very small proportion of bisulphite of lime had been added, being put by the side of the first.

In the course of six or seven months, most of the first series had become more less decomposed ; they had an acid reaction and disagreeable odour, while those to which the bisulphite had been added remained absolutely fresh and sweet. In consequence, I now treat all preparations of fatty or oleaginous substances with a little of this salt, applied in the form of strong solution, and have never yet found it to fail.

The bisulphite of lime—more strictly, of course, the bisulphite of calcium—is now manufactured upon a very large scale under Messrs. Medlock and Bailey's patent for the "preservation of animal substances"—a process with which I have experimented very largely, as having important bearings upon my special subject of British "Food Resources;" but I am distinctly of opinion that the bisulphite is capable of many useful applications in the pharmaceutical laboratory.

For ointments, a fluid drachm to each pound is quite sufficient to preserve them, while it has no injurious action whatever, and is quite compatible with the great majority of ointments and oily preparations—a remark which does not apply to the alkaline or sulphites or bisulphites which have from time to time been brought forward for similar purposes.

Beef-tea or broth in hospitals, or otherwise, may be prevented from turning sour by stirring in a few drops of the bisulphite of lime solution to each pint of the soup; and the same plan will enable us to keep jellies, which ordinarily decompose so rapidly in the organic germ-laden air of the sick-room, for many days unimpaired; these are, in my opinion, considerations of some moment in all circumstances, but most especially in the habitations of the poor.

Clothes or matting, soaked in the same solution and hung up, act as disinfectants of the most effective kind, and do not exhale the peculiarly unpleasant odour of carbolic acid, or the irritating vapours, so distressing to the bronchial system, of chloride of lime.

I have successfully employed the bisulphite of calcium for the preservation of numerous anatomical and other specimens, as it does its work perfectly, and without occasioning the great changes of colour and contraction of muscular structure so frequently produced by ordinary antiseptics; moreover, its special advantage over the preparations of mercury and arsenic lies, to my thinking, in the fact that it is not poisonous, and can therefore be handled with perfect safety.

There are numerous substances employed in pharmacy—such as musk, castoreum, lard, and other fatty matters—which are more or less injured by decomposition or keeping for any length of time. To these the bisulphite can be applied with considerable advantage.

MEMORIAL

TO HIS EXCELLENCY THE PRESIDENT, VICE-PRESIDENTS, GOVERNORS, AND GUARDIANS OF THE LYING-IN HOSPITAL.

MAY IT PLEASE YOUR EXCELLENCY, MY LORDS AND GENTLEMEN,—The great institution confided to our guardianship, which has, for upwards of a century constituted an ornament, and, as the first of the kind, a source of justifiable pride to our city, requires to be remodelled. The time has arrived in which, like all human institutions, progress and changing circumstances have produced such an influence upon it, that neither the intentions of the founder, the wants and just rights of the public, nor the claims of humanity, by securing the greatest preservation of life, are accomplished by its instrumentality. These considerations, strengthened by my occupations and habits of thought, and so confirmed by a connexion of nearly forty years with this institution in the various capacities of pupil, assistant, master, and governor, that I venture to hope no excuse is required for my present intrusion.

The preamble of the charter sets forth its objects as fourfold, First, that of preserving the lives and relieving the miseries of numberless lying-in women and their infants. Second, that of preventing child desertion and infanticide. Third, the prevention of gentlemen from going abroad for instruction in midwifery. And lastly, that by "admitting and instructing, in such hospital, women who, after some time spent there, being duly qualified, may settle in such parts of our said kingdom, as most stand in need of such persons, it will be a means of preventing the unhappy effects owing to the ignorance of the generality of country midwives."

That these objects *have* been accomplished it cannot be denied; but that they *are* accomplished to the extent and degree commensurate with the present resources and capabilities of the foundation, no man can for a moment affirm.

This proposition will appear evident, when it is stated that the patients admitted in the year 1818 amounted to 3801; those delivered to 3539; whilst these admitted in 1866 only numbered 1324; those delivered only 1069. In the year 1837, when the institution was under my care, the admissions having fallen under 2000, the governors, on my application, allowed me to establish a dispensary for treating externs, and to open a ward for the diseases of females. Since that time upwards of 4000 females, labouring under diseases peculiar to their sex, little understood and less attended to in other hospitals, have been admitted and treated within the walls of your hospital—treated, I say, by competent physicians who have made this class of disease their especial study.

And yet this is nothing to what might have been accomplished had the admissions been increased in the wards for the diseases of females as the admission of labour cases diminished. Let us now inquire why have the admission of labour cases diminished to nearly a fourth the number of those in 1818? At its foundation, the Dublin Lying-in Hospital was a unique institution, and for eighty years no other asylum or means of caring for lying-in women in their hour of need existed in this city. Subsequently, the Coombe Hospital and other maternities were opened, affording facilities for attendance upon the poorer classes in their own homes. Again, the North and South Union Poor-houses afforded asylums for the more destitute. These combined causes lessened the number of applicants for admission until at length they have fallen from nearly four to little over one thousand annually. No doubt, the prevalent idea of recoveries being better at their own homes than in hospital, since public attention has been called to the comparative statistics in each case, has had its influence in lessening the number of applicants to hospital. Be this as it may, the governors of the hospital are not responsible for the diminution in the numbers, as they have received all that applied. They have thus, as far as in them lay, carried out the intention of the founder in relieving the miseries of all the lying-in women that have applied for admission. But how have we acquitted ourselves of our trust in the other requirement of this part of the preamble, that of "preserving the lives" of the patients confided to our charge? My conscience obliges me to admit a conclusion, which has been long pressing upon my mind, that in this respect we have failed. Failed from no want of care, of talent, or assiduity, on the part of our medical officers—failed from no niggard supply of food, medicine or appliances—failed from no neglect on the part of our efficient staff of nurses and superintendents. But, simply, because the original plan and construction of the hospital was faulty, and because our great founder, Mosse, did not possess the power of divination or foreseeing what experience of the working of such an institution for many years could alone reveal, namely—that the congregating a number of lying-in women under the same roof engenders and spreads amongst them a disease, "*sui generis*," and of the most fatal character.

Puerperal fever, although occasionally met with, and even epidemic in the homes of both rich and poor, is known to haunt our lying-in hospitals as its peculiar "*habitat*," and so great are its ravages in lying-in hospitals and such the proportion of victims swept away by it, in proportion to other fatalities in parturition, that there are physicians and philanthropists who even question whether lying-in hospitals, as generally constructed, do not prove rather a curse than a blessing to the lying-in patient. Upwards of twenty years since my attention was called to this subject by having been consulted by some benevolent people in America as to the best principle on which to construct a lying-in hospital. And I then unhesitatingly advised that it should be constructed in detached buildings, capable of containing only two or three beds in each building, and one story high, or, if two stories high, that separate entrances by outside stairs should exist to each room.

It is this plan that I now beg to suggest to you for adoption at the lying-in institution under your care; and peculiar facilities exist by possessing a high plateau, particularly well-suited to this purpose in that portion of the Rotundo gardens next to Palace-row. This plateau is about 400 feet by 200. On this I would recommend that 30 cottages, 25 feet by 15, with avenues 20 feet wide intervening, be built: that these be fitted with 3 beds in each, according to the accompanying plan. Fortunately, through the forethought of your former master, Dr. Collins, to whose exertions the finances of the hospital owe so much, the ground of the square has become the property of the hospital, so that the required buildings can be constructed on your own ground. The money for this purpose, as I explained to your board on a former occasion, can be obtained at 3 per cent., paying itself off in twelve years.

Into these cottages the lying-in patients should be admitted by an entrance at Palace-row. Your lying-in patients now only average about 37 in hospital at the same time, and 60 beds would afford an ample supply to secure the proper cleansing and ventilation between each fresh admission. By this means, and the never having more than two patients and one nurse under each roof, there can be little doubt that puerperal fever would, if not banished, merely show itself in the same proportion of cases, and only prove as fatal as it is observed in private practice. These buildings might be constructed in the style of the cottage ornée, and have the effect of a Swiss chalet, as seen from the houses in the square, proving rather an ornament than otherwise.

You were good enough, my lords and gentlemen, to accede to the resolution I proposed, and directed that your master should afford assistance to all poor lying-in women who required obstetrical attendance in their own homes, and also that a registry should be kept of those so attended. It is gratifying to find that this plan has been in successful operation, and is fully appreciated by those patients who have taken advantage of it.

As exception has been taken by the learned Professor, Sir J. Simpson, of Edinburgh, to the preference reserved in the charter for those who have served the office of assistant in the election of a master, we deem it due to the founder's memory, and the interests of the hospital, to dwell upon the importance of this provision being strictly adhered to. Nothing more clearly evinces the astuteness and wisdom of Mosse than its inculcation.

We decline to base his motives upon the lower ground of merely encouraging his own alumni, and holding out the important and, as it has transpired, most lucrative office of master, as a reward and motive to exertion in the great school he was founding. This, no doubt, may have influenced him to a certain extent, and with perfect justice. If his reason for making such a provision was this, his arrangement should be respected, and his wish in this, his will and testament, to provide for his own, should be disturbed by no rude hand. But Mosse's motives were far deeper, broader, more catholic. The founder of such an institution, to his own impoverishment, was influenced by no narrow or exclusive motives in selecting a physician to be intrusted with the charge of the institution for which he had sunk his all; the establishment of which had been the labour of a life; and the sustentation of which, in the highest efficiency when he passed away, was no doubt the first object of his care. Mosse, himself a physician-accoucheur in large practice, knew well that a man may succeed to a large practice, be a popular physician—nay, even

sustain a reputation as a writer and improver of his art, and yet not be either a safe or a sound physician-accoucheur, or such an one as he would feel justified in entrusting with the lives of the patients in his darling institution, or with the instruction of the pupi s of that medical school he was engaged in establishing. He knew that the opportunities of study within his ins uti on would be unequalled. He knew that the extent of ob servation enjoyed by a physician in however extensive practice could only be counted by fifties, whilst those to be enjoyed in his hospital would be counted by thousands. He knew that in midwifery practice especially, the varieties were so sparse that their numerical proportion rendered it impossible to be conversant with them *all* unless in a large hospital or great maternity; and that even at the end of a long life, several of them might be left unseen by the private practitioner. He knew that he did not want a master who was only acquiring his experience when he was past his work, but one whose ample opportunities—whilst his youth and vigour remained—secured his fitness to undertake so arduous a trust. All these matters he was fully conversant with; and he concluded, and most wisely concluded, that nothing better secured this than making a master, before his election, serve an apprenticeship as pupil and assistant in the largest available field of observation.

It now remains to be considered to what purpose the great hospital and the auxiliary hospital should be applied, and this consideration involves the last two objects set forth by the founder in the preamble—the preventing gentlemen going abroad for instruction, and the supplying duly qualified women as labour nurses throughout the kingdom.

In no manner could the former object be so satisfactorily and carefully carried out as by extending the principles of your present diseases of female ward, and appropriating several additional wards to this purpose, and two, if possible, to diseases (not contagious) of children. The results that have already followed your twenty-eight years' adoption of this plan fully justify its extension; and this, together with a large increase of attendance of labour cases at their own homes, and the attendance on the hospital patients in the detached cottages, would afford facilities to the obstetrical student that Mosse himself would have been satisfied with.

I have now only to report to your Board in reference to the remaining object of our founder, that of facilitating the instruction of qualified women to practice throughout the kingdom, that I waited upon Mr. Power and Dr. M'Donnel, the Poor-law Commissioners, who expressed themselves as much gratified at the resolution of the Board to admit women for instruction to be sent up by the Poor-law Unions on the payment of £5. But although they fully felt the great want that exists for a supply of midwives, and how great an object it is to obtain them, they regretted that the state of the law is not such as to authorize them to require the unions to present even £5 for this purpose. It therefore remains for us to consider whether, after existing interests lapse, arrangements may not be made before a new election of officers, by which this portion of the master's fee be not also discontinued, as the present master so liberally yielded the other portion.

As no part of our trust is more important than affording an increased supply of educated midwives, the arrangements proposed above will place the auxiliary hospital, and some wards of the great hospital, at our disposal for the purpose of accommodating any additional number we may require, and thus every requirement of the charter will be complied with. By first accommodating every patient who prefers being admitted to hospital, in wards so constructed as to afford them every comfort and advantage without incurring the risk from puerperal fever; by affording home attendance to every one that applies; by establishing an additional number of wards for those diseases incidental to parturition, and the female specially; by enlarging the opportunities for the male student, so as to make it a perfect obstetrical school; by doing the same for the female student, and thus increasing the supply of well qualified midwives throughout the country.

It might be necessary in carrying out these suggestions to add to the medical staff of the hospital, as the master and assistants would be unable to devote the time necessary; for instance, an additional assistant might be necessary. The consulting physician and surgeon, in place of being as they are at present, sinecure officers, would have to undertake the hospital duties, and possibly additional physicians and surgeons might be appointed to take alternate periods of duty.

The surgeons and physicians should be required to deliver clinical lectures to the pupils upon their cases. The female pupils admitted should be of a better instructed class than those hitherto sent up from the country, and a higher grade of educated females might be admitted, who, after undergoing a more protracted attendance at the hospital, and probably at lectures of a higher character, might, on examination, obtain a higher certificate of fitness in their walk. This would induce a superior class of women to enter upon the duties of nurse, and prove a great boon to the female population of this country.

You were good enough, in the year 1839, to approve of my establishing within the walls of this hospital, a society for the encouragement and spread of obstetrical knowledge, open to all persons devoted to these inquiries. I have now the gratification of informing you that the Dublin Obstetrical Society, established under your auspices, has developed into a national institution of European reputation—numbering amongst its members many of the most distinguished improvers of our art at home and abroad. That it has assisted in carrying out the designs of your founder, not exactly as he expresses it, by preventing such gentlemen as mean to practice midwifery from going abroad for instruction, but by drawing many gentlemen from abroad here for that laudable purpose.

The gross annual income of your hospital, as you are aware, amounts to about £3600; but, on deducting debenture interest, lighting the square, and the Rotunda expenses, the net available income may be stated at £2600. The time has arrived, in anticipation of the modifications above proposed, for inquiring how the funds of the hospital can be increased, and no time could be more opportune than the present. The Board could not contemplate any interference with vested rights; yet there is a prevalent conviction that the fees of the pupils and assistants should in this as in other hospitals, be appropriated in part or in whole to its maintenance. In support of this view, it is assumed that the reputation gained by the mastership is of itself sufficient remuneration for the master's services, and that if it were not directly remunerative in a pecuniary point of view, physicians advanced in life would not seek it as a means merely of money-making, whilst the competition would remain amongst younger men, who, whilst they possessed sufficient experience, would be influenced in their devoting their energies to work and improve it for the sake of the reputation to be acquired.

There is much reason in this latter view; but I should hesitate in recommending any alteration that would prevent the ablest men in the profession from looking to it as an object of ambition. It must be recollected, also, that it is an arduous charge, requiring a large proportion of time and residence. It must also be borne in mind that upon the exertions and attention of the master depends the supply of funds to the hospital as well as the number of his pupils. So that he should have a direct interest in increasing both.

Perhaps the most equitable and the most effective manner of dealing with this branch of our question would be to allow all the proceeds under the head of fees for instruction to be divided equally between the master and hospital, and this would afford the governors a fund for remunerating the services of the other medical and surgical officers proposed to be appointed to the hospital. As the ensuing year is the last for which the present master can be elected, if such an arrangement were adopted, it could not come into operation until the eve of the new election for master, and give time for altering the charter to meet the requirments of the day, if such be necessary. This would not in any way interfere with vested rights, as the candidates would be purchasers with notice; and, whilst it would enrich the institution by about £500 a-year, it would not lessen by one individual the number of candidates seeking for the appointment.

I have already drawn the attention of the board to the increase of certain items of expenditure in which a further saving might be effected; and I have little doubt that when we show the public our readiness to make the institution entrusted to our care worthy of their support, that encouragement on their part will prove equivalent to our exertions.

I have now merely to state that I transmit this letter for your perusal previous to the meeting of the governors, which will take place at the Rotunda Hospital at 3 o'clock on the first Friday in November, when it is my intention to draw the attention of the governors to the propositions herein contained, in the confident hope that so far as they are deserving of your approval they will obtain your support; and thanking you most sincerely for the attention with which my suggestions have always been considered by your board, I have the honour to remain, your Excellency, my Lords, and Gentlemen, your obedient servant,

EVORY KENNEDY.

1, Upper Merrion-street, Dublin, 28th October 1867.

Correspondence.

"THE QUACKS AGAIN."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—A young lad, aged 16, the son of a very wealthy and respectable farmer, came to consult me the other day relative to a complaint he thought he had. He had seen an advertisement in some paper, wrote, and had some sort of pamphlet forwarded from one of the "Duck and Drake" doctors, as they are called here; this lad wished me to tell him if he really was a good doctor! as he had so many testimonials enclosed in his book! After reading the work, the poor lad fancied he had all sorts of complaints; I soon set his fears at rest, desired him to burn the book, and never read one of them again, told him what they were, gave him one of the letters of "Vigilans" to read, and sent him home. I saw him a few days afterwards; he had burnt the book, and said some of those "*Devil's Doctors*" ought to be transported for life!! Yesterday I clipped the enclosed from the "Shrewsbury Chronicle" (of October 18):—

"Sufferers from ——, &c., CAN NOW CURE THEMSELVES by the only 'Guaranteed Remedy' in Europe, protected by Her Majesty's Great Seal. Details free, for One Stamp, by Medical Electrician to the London Hospitals.

N.B.—Medicine and Fees superseded.

(References to the leading Physicians of the day.)"

They seem to have gone upon a new tack, "Electrician to the London Hospitals," and "References to the Leading Physicians of the day." I wonder what their next piece of impertinence will be. The *Law* and *Divinity* are safe from imposition, then why not the Medical Profession? What has the Medical Act and Council done for us? Why, simply, made us "stump up" for having our names inserted in a red book. What has it done to protect our rights? Echo answers "Nil." I think we had better bestir ourselves and not let our *profession* degenerate into a *trade*, which it surely will do, if things go on as at present.—I remain, yours faithfully,

J. W. LANE, M.D., L.K.C.S.

FEES TO PUBLIC VACCINATORS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The new Vaccination Act will be coming into operation by the 1st January, 1868, when a fresh staff of public vaccinators will be appointed, and private practitioners, who necessarily vaccinate a proportion of the children whose parents they attend, will be compelled to give certificates of successful vaccination under pains and penalties.

In this quarter several medical men have refused to give the registrar a duplicate of their successful cases under the present act, without any prosecution. But I understand, under the "new act," the law will be more stringent, and the penalties will be enforced. I look upon it as a gross outrage of injustice to compel medical men to give certificates without fee or reward. I would like to know how others who will have no public appointment as vaccinators, and the many who read the MEDICAL PRESS AND CIRCULAR, intend to act? By giving this note an insertion in your next week's paper it may induce other medical men to be prepared to counteract this other grievance looming in the distance, and, with your advice, we may be enabled to steer clear of the breakers ahead.

Sunderland. A CONSTANT READER.

REGISTRATION OF BIRTHS IN IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—I feel pleasure in giving any further information I am able to your correspondent, "Ante-disobliging Birth Registrar."

The Birth Registration Act requires the parents of the child, or in case of their death or inability, the occupier of the house in which the child was born, or the nurse or any one present at the birth, to give notice thereof to the District Registrar at any time within twenty-one days after such birth.

Neglecting to give such notice, subjects the parties to a penalty of twenty shillings.

On receipt of this notice by the registrar, and which may be sent by post or otherwise, he forwards a circular to the sender requiring his or her attendance at his dispensary or vaccination station for the purpose of giving information as to the birth, and which can be done at any time within a period of three months from birth.

Neglecting to comply renders the party liable to a penalty of forty shillings.

The informant, when in attendance, is to give true answers to the following enquiries of the registrar, viz.:—

1st. The date and place of birth.
2nd. The name, if any.
3rd. The sex.
4th. Name and surname, and dwelling place of father.
5th. Name and surname, and maiden surname of mother.
6th. Rank or profession of father.

The informant and registrar must *then* sign their names in the Registrar-book in each others presence.

A district registrar, who refuses or omits to registrar a birth after due notice, renders himself liable to a penalty of ten pounds.

If your correspondent considers himself aggrieved, I would advise him to lay his case before the Registrar-General, as the registrar was not justified in refusing to register the birth on the information of the medical practitioner in attendance.

The practice differs from that in England. There the relieving officers are the registrars, and if I am not misinformed, on due notice they attend at the residences of the parties, and register the birth.

I should be sorry the hard worked medical officers of the Irish dispensaries should be placed on the same level. The "scarlet runners," otherwise the red visiting tickets with which they are so often troubled, and for which they are so poorly remunerated, keep them sufficiently busy; and it would be too bad to add to their arduous duties by compelling them to attend at people's houses to register births and deaths, for which they only receive the small sum of one shilling each.—I remain yours truly, A DISTRICT REGISTRAR.

WINDFALLS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I neither want nor care for windfalls, that is, windfalls of the kind treated on by your correspondent "Interloper;" nevertheless, it is really a disgrace to our profession to find how appointments, public and others, are sometimes "managed." As a practitioner of some years standing, I have had ample opportunity of knowing much about those appointments, and I really wonder that long before the subject was introduced to public notice by "Interloper," the "cheat on public confidence," which the giving of public appointments, *sub rosa*, undoubtedly is, had not been fully exposed. On the face of the matter it does appear that much blame is due to the Medical Council, but if its members are the medium through which appointments are made, I do not hesitate to declare them *decidedly* unworthy of the positions they hold.

Hoping to find amongst the Medical Council some gentlemen who have not used what ought to be public "patronage" in their private capacity, and anxiously desirous that gentlemen, who are in a position to repudiate the "base insinuation," will immediately do so, in order that the profession may know its true friends, without bias, favour, or affection.—I remain, sir, yours, M.D.

Medical News.

LIST of Entries in the Register of the Branch Medical Council (Ireland) for the month of October, 1867:—

John Murdock, Portglenone, county Antrim, M.B. 1867, and M.S. 1867, Univ. of Edin.; Henry Eames, 8, Upper Fitzwilliam-street, Dublin, L.R.C.S.I. 1867, M.B. Univ. Dubl. 1867; Wm. Arthur O'Connor, Sandford House, Tralee, county Kerry, M.B. 1866, and M.S. 1866, Qu. Univ. Irel.; John Bingham Fitzsimons, Kilkenny, M.D. Q.U.I. 1867, L.R.C.S.I. 1867, L. Apoth. Hall, Dubl., 1867; Horatio Edmund Maunsell, 53, Harcourt-street, Dublin, M.B. Univ. Dubl. 1867; Henry Fitzgibbon, 10, Merrion-square, North, Dublin, M.B. 1867, and M.C. 1867, Univ. Dublin; Rickard Vincent MacCarthy, 4, Upper Ely-place, Dublin, L.R.C. Surg. Irel. 1867, L.K.Q.C.P.I. 1867; Wm. Fetherstonhough, 7, Upper Prince Edward-terrace, Blackrock, county Dublin, M.B. Univ. Dubl. 1866, Lic. R. Coll. Surg. Irel. 1867.

THE WEST INDIA STEAMER ATRATO. — SOUTHAMPTON, 29th Oct.—This vessel arrived at the Motherbank on Tuesday night, where she remains in quarantine. Early on Wednesday morning Dr. Wiblin went down to the *Atrato* in a steam tender. The specie was landed about four o'clock in the afternoon. Dr. Wiblin remained at the Motherbank arranging the disposal of the sick, the convalescents, and the healthy passengers. The sick were transferred to Her Majesty's ship

Menelaus, the convalescents to the *Æolus*, and the healthy people to the *Parana;* a medical officer being appointed to each vessel. There were on arrival ten ill with fever, two in a dangerous condition. The *Fancy*, gunboat, acted as guardship to the vessels detained under quarantine, and Her Majesty's steamer *Pigmy* was placed at the disposal of the medical superintendent of quarantine for the performance of his duties. There have been eight deaths on board the *Atrato*, one the day before leaving St. Thomas. Some of the sick have died since arrival.

SOCIAL STATUS OF WORKHOUSE MASTERS.—In a letter to the *Times* of Thursday, Dr. W. Domett Stone calls attention to the fact that, as a rule, the education and general social status of the masters of workhouses are below what the official position in which they are placed ought to demand. He thinks that an alteration of the standard of requirements for the posts of master and matron should be the first step in workhouse reform. Until something is done to produce a better class of masters than the present, it is idle to think of completely preventing such abuses as those recently disclosed. So thinks Dr. Stone, and he has supported his opinions with a good deal of sound argument and apt illustration.

YELLOW FEVER AT THE MOTHERBANK.—An order was issued on the 19th ult. by the Lords of the Privy Council to release the passengers on board the *Parana*, the crew on board the *Æolus*, and all persons on board the *Tasmanian*, provided all were in good health, at noon of Monday, the 21st. As no disease or fresh cases had occurred on board these vessels up to the appointed time, they were released from the imposition of quarantine restrictions, and at once proceeded on to their port of disembarkation, Southampton. Some invalids still remained under quarantine on board the hospital ship *Menelaus*; but they are all convalescent. We had recently occasion to make some brief observations relative to the serious mortality which obtains so frequently on board the Royal Mail Company's splendid fleet of steamers, and we cannot refrain from again drawing the attention of the Royal Mail Company to this painfully significant state of matters. We would ask how it is that they still persist in sending their steamers to the poisonous coal wharf at St. Thomas's, after their experience of five or six epidemic visitations of yellow fever, and the fearful mortality that has invariably followed amongst their officers and crews. We believe that we are within the bounds of accuracy when we state that not less than from fifteen to twenty medical officers have fallen victims to yellow fever during the last fifteen years! We are informed that two other companies run from St. Thomas to St. Nazaire in France and Liverpool, and that the passengers and crews of these steamers enjoy an immunity from attacks of yellow fever which surpasses our comprehension. The explanation may rest upon the fact that both companies take their living cargoes to a different wharf, and, instead of detaining their crews for fourteen days in a pest-hole, they only detain them twenty-four hours for coaling purposes.—*Medical Times and Gazette.*

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Dr. P.—The contribution will be acceptable.

In Memoriam.—Too late now for insertion.

Chemicus is referred to "Squire's Companion to the Pharmacopœia" for the information he seeks.

H. T.—There were others besides yourself, to whom reference was made.

Manchester.—We do not know the work you speak of, the names attached as "The Publishers" may generally be taken as a guide.

Y. is extremely unreasonable.

E. T.—It is scarcely feasible.

N. urges his point too strongly.

F. C.—You had better watch over your words, lest you condemn yourself.

G. D.—It is not advisable.

Enquirer.—Yes. The Poor-law Board consider that the Guardians of St. Pancras had power to dismiss Mr. Bennet. The possession of that power does not make the exercise of it just.

Non-Medicus.—Our correspondent is so uncharitable in his views, and expresses his sentiments so openly and unguardedly, that we cannot insert his communication, as we should incur the risk of an action for libel.

Mr. Henry Lee draws our attention to a discrepancy in Dr. Porter's case, published last week:—"Dr Porter says that the opinion expressed in my letter of 17th of April this year, was corrected by the missing link being supplied on the 6th of March!! On the 10th of March he observes, the spots had begun to wither up, and no fresh ones appeared. On the 16*th of May*, Dr. W. MacCormac considered the case syphilitic. In neither case are the dates in favour of the conclusion."

SEA-SIDE DRAINAGE.

THE following is an extract from a letter on the above subject, to which we have recently drawn attention—from a valued correspondent:—

"I see you are anxious to encourage drainage reforms. You are, therefore, aware how necessary they are in *very* many places. It certainly cannot tend to encourage sanitary reformers to see useful works of the kind carried out here associated with quarrelling and attempts at detraction, &c. Although I have advocated the course that has been pursued here, if it had not perfectly answered I should be the first to condemn the mistakes made, and the author of them. But nothing can work better than our scheme does; but just *because* it does so, I think it very probable you will be asked to point out some defects which do not exist, out of a spirit of envy and jealousy. St. Leonard's would not be affected by such representations, because visitors here *must* see how free, *perfectly* free, the place is from any nuisance from sullage or drainage; but the cause of sanitary reform must suffer if shown up, connected with disparagement where carried out, particularly as ours has been here. Mr. Bazalgette would, indeed, be unworthy of the high reputation he has, if he could not have carried out for us *here* works on so *very* limited a scale as ours—as *perfectly* AS HE HAS; you may be *sure*, therefore, that if your correspondents attempt to 'blow upon' what we have done, it will only be to gratify a spirit of malice and spite. It would be detrimental to the cause in general to allow such an exhibition, and I am sure you will see that it would not be right to Mr. Bazalgette, or fair to him or his *official* position, to allow expressions of disparagement which, I assure you, are *not* founded upon fact. We at St. Leonard's are under a great debt of gratitude to him for the very efficient scheme he has given us, and the *great pains* and trouble he has bestowed to make it so."

Several articles, including further notes on Sea-side Drainage, Fourth Report on Wine, Reviews, &c., are unavoidably postponed.

BOOKS, PAMPHLETS, &c., RECEIVED.

On Ringworm; its Pathology, Causes and Treatment. By William J. Smith, M.B., &c. London: Robert Hardwicke.

Softening of the Stomach in Children. By C. E. Reeves, B.A., M.D. Melbourne: George Robertson.

Epidemic Meningitis, or Cerebro-spinal Meningitis. By Alfred Stillé, Philadelphia. London: Trubner and Co.

The American Journal of the Medical Sciences. October 1867.

Photographs of Eminent Medical Men. No. 6. Vol II. London: John Churchill and Sons.

Hardwicke's Science Gossip. Pharmaceutical Journal for November. New York Medical Journal. Edinburgh Medical Journal. Glasgow Medical Journal. The Monthly Homœopathic Review.

Hastings News, East Sussex Journal, Public Opinion, London Review, Spectator, Hastings Chronicle, Southampton Times, &c.

MEDICAL APPOINTMENTS.

ENGLISH.

Dr. JOHN MURRAY has been appointed Chloroformist to the Middlesex Hospital.

Dr. G. GODDARD ROGERS, M.R.C.P., has been appointed a Physician to the Royal Hospital for Diseases of the Chest, City-road, vice Dr. B. W. Richardson, resigned.

IRISH.

FLEETWOOD CHURCHILL, M.D., Pres. K.&Q.C.P.I., to be Consulting-Physician to the National Institution and Molyneaux Asylum for the Blind of Ireland.

W. D. MOORE, M.D., Dub. et Cantab., L.K.&Q.C.P.I., and R.C.S.Edin., to be Physician to the National Institution and Molyneaux Asylum for the Blind of Ireland.

SCOTCH.

Dr. LEISHMAN has been appointed Examiner in Midwifery and Forensic Medicine to the Faculty of Physicians and Surgeons of Glasgow.

Births, Marriages, and Deaths.

BIRTHS.

CROLY.—On October 29, at 27, Harcourt-street, the wife of Dr. Henry Gray Croly, F.R.C.S.I., of a son.

QUINLAN.—On October 25, at Borrisoleigh, the wife of Dr. Quinlan, L.R.C.S.I., &c., of a son.

GRIFFITH.—On October 18, at Portmadoc, the wife of Samuel Griffith, Esq., M.D., of a daughter.

WILSON.—On October 22, at Park-house, Maida-hill West, the wife of H. Wilson, M.D., retired, Bombay Army, of a daughter.

MARRIAGES.

HEWITT—BEALEY.—On October 24, at the Parish Church, Radcliffe, Manchester, D. B. Hewitt, L.K.Q.C.P., of Dublin, to Mary Williams, eldest surviving daughter of R. Bealey, Esq., the Close, Radcliffe. No cards.

NAUGHTIN—ELLIS.—On October 22, at St. James's Roman Catholic Church, W. Naughtin, M.R.C.S.E., to Frances Gertrude Mary, youngest daughter of the late Major Ellis, formerly of the 13th Light Dragoons. No cards.

DEATHS.

HATFULL.—On October 24, at 417, New-cross-road, Deptford, R. Hatfull M.R.C.S.E., in his 80th year.

LAVIES.—On October 26, at 34, Bessborough-street, S.W., formerly of Great George-street, Westminster, J. Lavies, F.R.C.S.E., in his 69th year.

POWER.—On October 20, at Leamington, J. Power, formerly Surgeon to H.R.H. the late Duke of Kent, and Surgeon Extraordinary to H.R.H. the late Duke of Cambridge, in his 87th year.

Introductory Addresses.

THE ROYAL COLLEGE OF SURGEONS.

ABSTRACT OF INTRODUCTORY ADDRESS.

By WILLIAM BARKER, M.D., M.R.I.A.,
PROFESSOR OF CHEMISTRY IN THE SCHOOL OF THE COLLEGE.

MR. PRESIDENT,—Having been honoured by the request of my colleagues, to give the opening lecture of the present session, I feel deeply the obligation I have taken upon me in attempting this duty, not only from the difficulty of bringing before you any matters of peculiar novelty, or treating subjects necessarily common-place, in a new or attractive manner; but chiefly from my occupying the place of one who for many years performed the duty I have now undertaken, and who was equally conspicuous for his genius, his industry, and his devotion to the interests of this school, this college, and his profession: and I could not, and ought not, let this opportunity pass without referring, in a very few words, to our late Professor of Anatomy and Physiology; and as I am happy to say he still lives amongst us, I must, in speaking of him, equally avoid the style of posthumous panegyric or tasteless flattery of the living, which, I am sure, would be equally offensive to its object and to you. Of Dr. Jacob's services as a member of this college and of its council, it is not for me to speak; those who were his colleagues during many years, can best bear testimony to his zeal, sagacity, and devotion to the interests of the college; but I now speak of him as a teacher, an investigator, and a member of the profession. In the first of these capacities, he held for many years the highest position in Dublin; clear and perspicuous in his method of imparting knowledge, deeply learned in the literature of his profession and original in his views on many of the most important problems of physiology, he added to these valuable qualities the constant and earnest desire to perform his duties without reference to the caprices or fashions of the day; but solely in accordance with what he believed to be his duty towards his class. As an investigator in the domain of practical anatomy, his name will be known as long as scientific anatomy is studied, or a record is kept of those who have enlarged its boundaries; and as a surgeon, we all know how eminent was his character for judgment, skill, and sagacity. To these points I should add that his anxiety for the welfare of his profession, caused him to sacrifice much of his time, and, consequently, of the emoluments of his profession, in advocating its rights and privileges, which he did with an energy as intense as the honesty and integrity which guided his whole professional career.

I will not dwell longer on this subject, but merely state that the last act of his public life was in perfect accordance with his whole career. As soon as he felt that the hand of time was pressing on him, and that he could not bring into the service of this college and its school, the same energy which had been devoted to them for many years, under no external compulsion—of his own free action—he resigned his offices in this college to younger, and, I trust, adequate successors, sacrificing honours and emoluments to what he considered the interests of this institution. I trust I need not apologise for this brief allusion to your professor and my former colleague, and I feel that all who knew Dr. Jacob, and are aware of the services rendered by him to the public and our profession, will candidly concur with me in the wish, that for many years to come, he may partake of all those blessings which should accompany old age, "as honour, love, obedience, troops of friends," and be long spared to enjoy the sunny memories of the past, and joyful anticipations of the future.

We are assembled here to-day to inaugurate the commencement of our winter session, a period of labour and toil to us all, and which will, I trust, prove one of progress and advancement in knowledge, to a large number of my hearers; and as I have to address many students commencing their important studies, as well as those who are more advanced, I shall endeavour to suit the observations I have to make to the necessities of each class. Before, however, I proceed further, I may allude to certain changes which have been made in the arrangements of the school since last session, for your convenience and advantage. The dissecting-room has been enlarged one-third, and provided with all those appliances requisite for your comfort and convenience, so that all of you will, I trust, find that much greater facilities are afforded you for the zealous pursuit of anatomical study than you had heretofore. Another, and perhaps a more important change, made in the anatomical department, is the increased staff of demonstrators, so that both junior and advanced students will have opportunity of reference to gentlemen fully competent to assist them in their work, and guide them in the economic disposal of the time devoted to practical anatomy; and there are few amongst us who are not aware of the great benefit of such guidance in a subject of such difficulty to a beginner, and even to more advanced students; how many mistakes and misconceptions may be avoided or corrected, by the students having a competent reference and guide at hand to explain any difficulty that may arise, or to point out what is the right course to adopt in order to make the best use of the time which can be devoted to this pursuit. A competent demonstrator is as essential to the student as a pilot to a ship, and as necessary to steer him through the *mare ignotum* of muscles, attachments, origins, insertions, nerves and vessels, on which the beginner would be as sure to be wrecked as the landsman amongst the rocks and shoals of an intricate navigation without a guide.

You will also, I am sure, gain great advantage from the exertions which Dr. Mapother, the worthy successor of Dr. Jacob, has made during the summer vacation, to obtain for your use and benefit those appliances requisite for the complete illustration of lectures on physiology. He has visited some of the most celebrated foreign schools, and obtained what apparatus or models could serve to elucidate his subject, and I should hope that with such means in his hands, nothing that can illustrate and instruct in his most interesting and important subject will be deficient. The school museum has likewise been re-arranged, and many additions made to it, so that you may have constantly under your inspection valuable specimens to illustrate the lectures on anatomy and physiology, and within your reach, without the trouble of going to a distant part of the building to examine the specimens in the general museum. In other departments of the school considerable improvements have been made, to which I cannot now allude further than to state, that the council of the college have shown the greatest liberality in providing everything requisite for your accommodation, and giving increased facilities for your instruction.

And, now, let me address a few words to you as students of one of our noblest professions. You are commencing a career which, in its studies and its practice, will require your best energies, for the course before you is both arduous and difficult; and to attain success you must be prepared to exert both your moral and intellectual energies. You have to pass examinations to qualify you, and so enable you to cross the threshold of your profession; you may have to pass competitive examinations which will at once give you the enjoyment of a competence, and in which you may have to compete with men from the most distinguished schools of Great Britain, and the attainment of the objects of such competition will depend upon the use you make of your opportunities for the next few years; or, perhaps, you may intend to settle down to seek for practice in your own country, its colonies, or in foreign lands.

Now, in any of these cases you must have certain legal qualifications, and chief amongst these is a surgical diploma, to attain which you require education in certain subjects which are essential, and on which I shall say a very few words. In the first place you must study anatomy, which properly holds the first place in importance in your curriculum; unless you are good anatomists, you can never

be good surgeons, nor can you ever master those ancillary sciences which are based upon it; and to be good anatomists requires time, attention, memory, and manual work. It is, therefore, of the first importance that you should devote your energies from the outset of your career to this subject, and nothing but perseverance in manual and mental labour can enable you to attain success. Practical anatomy gives you, likewise, that mechanical skill and dexterity so essential to the operating surgeon; it teaches you the relation of the different structures, either in their normal or abnormal conditions, ignorance of which would be culpable in the practitioner; but it also affords the starting point for the study of comparative anatomy and zoology, both of which are based upon a sound knowledge of human anatomy; you have also to study physiology, chemistry, botany, and the practical branches of your studies, surgery, medicine, and midwifery, and it will be the duty of your teachers, in each of these branches, to select and lay before you such portions of each as are requisite for your passing the threshold of your profession; and by energetic work, and making earnest use of all opportunities, you may master as much of each subject as will enable you not only to pass an examination with credit, but also to enter upon the practice of your profession, and to gain from experience that absolute fitness which time alone can give. I have now only spoken of strictly professional education; I know it is often the habit to urge on students the importance of studies extra professional, languages, logic, metaphysics, mathematics, chemistry in its higher branches, botany, zoology, all these are recommended to the medical students as deserving their special attention, but however ornamental or useful these may be, depend upon it, as medical and surgical students, you can have little time for aught else than what is *purely* professional. No doubt there are hours of leizure, "*horæ subsecivæ*," which you may devote, and I hope will devote, to study not actually practical; but during your student career these hours can be but few, and you must defer, till your student period has passed, any devotion to subjects not tending to professional advancement. I may add, that your proper studies are as likely to prove valuable to your mental culture and elevation, as many that are advocated for this purpose. All your subjects cultivate the faculty of memory to its highest point, the power of reasoning by induction, of drawing correct conclusions from premises, of detecting fallacies or sophisms in an argument or a statement, in fact, practical logic must be constantly employed in the subjects you are engaged upon; in physiology and chemistry you will have to study many of the laws of natural philosophy, and whatever knowledge of languages you may possess will be constantly brought into use and practice in every branch of your professional work, so that, as it were unconsciously, you are studying or learning much of what is ancillary to your professional acquirements. Your destiny for the future is, *in a great degree*, in your own power; diligence, zeal, honourable conduct, will surely bring those rewards, which idleness, indolence, and neglect of opportunity need not dare to hope for. If you *walk* your hospital, merely qualifying yourself for a certificate of *bodily* attendance, if you lounge in the dissecting-room, or lecture theatre, without actively using your hands or your brains, perhaps you may pick up some crumbs of knowledge, and with the help of a judicious private tutor contrive to scrape through an examination sufficiently lax to entitle you to obtain *somewhere* a legal qualification; but the time will surely and inevitably come when your incompetence will make itself known, if not to the world, at least to your own consciences, and you will in vain regret the opportunities lost, and the hours wasted never to be recalled. If, on the other hand, you remember the advice of one of England's greatest Lord Chancellor's, that to attain great success in a profession, "a man should live like a hermit, and work like a horse;" if, from your first years of study, you begin with the determination to do your duty to yourselves by neglect of no opportunity, by steady perseverance, by regularity, by self-denial, believe me ultimate success must attend your exertions; luck or fortune will have little power over you, and you will realize the poets dictum:—Nos te facimus, Fortuna, deam cœlumque locamus. There is one other point which I trust you will pardon my alluding to in a very few words. You are preparing for a profession in which you may be thrown into the society of the most cultivated, noble, and wealthy classes of society, as well as the poorest, most illiterate and uncultivated. No class of society can be independent of your aid; and, therefore, you should direct your attention to the cultivation of those habits which will render you suitable companions for any class; courtesy of manner to all, gentleness and kindness to the poor when suffering from disease, truthfulness and candour; these are almost as essential to you as knowledge of your profession. If you engage in private practice, if you enter the army or navy, you will be thrown into the society of gentlemen, and it will depend upon the habits which each of you have formed, and the manners you have cultivated, whether you will be treated as gentlemen and as equals, conferring favors by exercising your profession, or mere hirelings well paid for performing a servile duty. There are some rare cases in which rudeness and brusquerie of manner, have not marred a man's professional prospects; but believe me, these are special exceptions to a general rule, and the opposite habit is, to say the least of it, the most likely to be esteemed, and is certainly that which commends itself to all persons of correct feelings or proper sentiments. One more observation respecting your studies, and we shall pass to another subject. You should not look upon them merely as a passport to affluence or competence, but as a schooling of your minds to raise them higher in intelligence and power, and for the advancement of your intellectual nature.

Having completed your course as students, you will then be ready to obtain the necessary legal qualification to practice, and I may safely presume that all my hearers who are students, purpose seeking, what undoubtedly is in this country, and I think I may say in all the civilised world, recognised as the highest surgical qualification—namely, the licence of this college. Not being a member of it myself, I think my judgment may be considered impartial, and I should urge you in the strongest language not to hesitate in preferring this to any other qualification. In the first place, its name as sending out into the world the best-educated surgeons is familiar to all; and the prestige attached to its diploma is not limited to this country, but known wherever surgery is valued. An intelligent American well remarked that there were two manufactures of which Ireland might be proud—surgeons and linen; and this very practical comment on our diploma was, I think, at least truthful, if not graceful. Another reason for your taking your diploma here is, that not only is it well-known and esteemed, but also that a certain degree of doubt attaches to any student who seeks either a *novel* or a *foreign* qualification. People naturally say, "Why should he not have obtained his qualification where he was known, when that qualification was at least equal, if not superior, to any other?" Yours, gentlemen, should be the ambition to appear classed in such a list, and to aid in advancing yourselves to be the equals or superiors of those whose honoured names appear there, and thus to add still greater credit to the name of Member of the Royal College of Surgeons in Ireland.

You will also in this College have the advantage of being examined by a board selected with all the care that it is possible to exercise, and under the most solemn sanctions, and whose competence has never been questioned, as to your fitness for taking upon you the duties of practitioner; and your fitness is not only vouched for by your examiners but also by assessors, Members of Council, who are the judges of the style of examination, and whose presence is an ample security against *even* the imputation of favouritism or unfairness. It does not follow that with all these safeguards the decisions may not be inaccu-

rate. Your want of nerve, defective habits of expressing your thoughts, want of readiness in recalling your ideas, may all combine to disable your examiners from passing you; but this is no imputation upon you or them. I merely mention this to show that there are rare cases in which the punishment of ignorance and idleness may be visited on the worthy candidate; but these cases must be inevitable in any form of examination that human ingenuity could devise, and be assured that in the vast majority of cases there is no doubt but that industry and energy, combined with average capacity, may be assured of success.

Having passed your surgical examination, you may have to seek a qualification in medicine; this you can do in the College of Physicians, the Universities, or the Apothecaries' Hall, any of which can supply you with the diplomas or degrees necessary for the public service, and your selection of which will depend upon your future objects and prospects. We will suppose now, gentlemen, that you have successfully passed your examinations, and obtained all needful qualification for the practice of your profession, you have then the difficult task of fixing on the position in which you are to employ yourselves; "the world is all before you where to choose," and of the many outlets for your energies you will have to select that best suited to your circumstances and your tastes. You have before you for selection the different branches of the public service, the army, navy, and Indian service, the poor-law board, private practice in the country, or in large towns or cities, practice in our colonial possessions, practice in foreign countries. Now, I shall make a very few remarks on each of these.

And first, the army. I need hardly say that to many men this service possesses great attractions. I do not say that the red coat and sword could fascinate any sensible man; but the social status, the association with the brave and distinguished, the certain emolument, the foreign travel, the promotion to higher rank and pay, *certain* if not rapid, the sure provision for old age, these are all *rational* causes for the selection of this department by many of our licentiates; and of late years the government has so largely increased the inducements to join this service, by increasing the pay and raising the rank of the army surgeon, that I am not surprised that it is an object to many to seek appointments in it. Now, you are most of you aware, that the qualifications requisite for this service are a surgical diploma, a medical qualification, and passing an examination at which candidates from all parts of the British Empire may compete, and which is conducted by gentlemen of the greatest eminence in their several departments, and which is admirably suited to test the comparative fitness of the candidates from their knowledge of those subjects requisite for the public service; if successful at this examination, the candidates are subjected to a course of military study at Netley, and a second examination to ascertain whether they are fully qualified for their duties; I should add that the residence at Netley also enables the authorities to ascertain the moral fitness of the candidates for the position they are intended to fill; and most properly, very great stress is laid upon this qualification, as no man can be fit to take upon him the deep responsibilities of an army surgeon, who does not possess the temper, habits, and feelings of a gentleman, and that steadiness of character which keeps him always fit for his arduous and responsible duties. Now, gentlemen, I should mention to you that there are subjects examined in for the army on which, most properly, much stress is not laid in your examinations for diplomas—hygiene, natural history, botany, and chemical analysis, these are, for the army, either compulsory subjects, or will greatly add to the probabilities of your success should you carefully attend to them, and the knowledge of them will greatly conduce to your holding a high position at the final examination, besides giving you the means of pursuing investigations in those sciences, which may be the greatest benefit to you, not only by affording you abundant occupation for your leisure hours when on foreign service, but also enabling you to establish characters for industry and intelligence, which may lead to your advancement in the service and to your intellectual position in the scientific world. Some of the most eminent botanists, zoologists, and writers on various branches of natural history, have been army surgeons, who, possessing sound elementary knowledge, were enabled to cultivate these sciences more extensively by the opportunities afforded them in the public service. These remarks apply equally to the candidates for the Indian service, which differs from the line in its officers being permanently stationed in India, and if this does not terrify the candidates, it has many advantages of pay and eligibility for civil appointments, to compensate for the absence from one's own country. Perhaps it may be an encouragement to those amongst you who intend competing for army appointments to be informed, that of the whole number of successful candidates from Great Britain and Ireland at the examinations for the last ten years, nearly one-third were educated in this school.

The naval service also presents many advantages to the young surgeon, but to it there are insuperable objections amongst many students. The imprisonment in a ship, and the dreaded sea-sickness are, to some, too formidable hindrances to be easily got over; but for those who do not fear these, who have the "dura nautarum ilia," which can despise the one, and the temperament which can defy the other, it possesses many advantages, and I know many gentlemen who have selected this service, and never repented of their choice. Now, gentlemen, if you select any of these branches of the public service, consider well whether you have all the moral and physical qualifications necessary for them; you must have temper to bear patiently harshness or injustice, should you have the misfortune to be exposed to them; to know how to obey commands implicitly; to be fitted for command yourselves in circumstances the most trying; to have that physical constitution which can bear exposure and hardship if required; animal courage, which no danger can daunt, which can face disease in the swamp, can, with unshaken nerve, operate under fire, and, above all, that knowledge which makes you masters of your position in all circumstances—on the battle-field or in the cock-pit; you may be called upon to operate, when ignorance or timidity may sacrifice life, or cause life-long suffering; as the poet Schiller says of the soldier, "It is under these circumstances that a man's worth is known. No man can take his place, he stands for himself alone." You will have no consultant standing by to advise you, no books to refer to, your own head and hand can be your only helpers; on your agency depends life or death; failure through your own imcompetence may give you life-long regret; whilst success, arising from your knowledge and skill, even though unrewarded by public recognition, will at least have the approval of your own consciences, and you all know

> "One self-approving hour whole years outweighs,
> Of stupid starers and of loud huzzas."

We shall next say a word or two on settling down in the country, in dispensaries, infirmaries, or private practice; and this life has many advantages where circumstances, admit of it, but we must remember that, in many cases, it too has its drawbacks. To be the slave of a board of guardians, perhaps, ignorant and exacting; to have to bear the "insolence of office, and the spurns that patient merit of the unworthy takes," to have the charge of a district which keeps you in almost perpetual motion; to have to face the storm and tempest in dark winter nights at the call of real or fancied illness; to have your feelings harrowed by want and misery, which your means forbid your alleviating, to have all your services requited by a stipend the most niggardly, and which is most grudgingly given. This is one side of the picture, which the country practitioner must look at. On the other hand you may have the good fortune to be placed where your duties, no matter how onerous, yet are amply appreciated and generously rewarded, and where your

services are accepted with gratitude and ungrudgingly requited. In the latter case, your position is enviable and probably far above any other for tranquil happiness, whilst in the former there are few positions that would enable you to live, that are not to be preferred. Of course. on your own judgment and knowledge will rest the decision of the position you will seek for; but let nothing tempt you to waste your youth and energies in a locality where your life will be one of exhausting labour, uncheered by sympathy or encouraged by hope of advancement. Again, you may settle down to wait for practice in a large city or town; in this case you must be prepared, except in rare cases, to exercise the great virtues of hope and patience. Some one well remarked "that a man settling in a large city will not begin to earn his bread till he has no teeth to chew it;" and this in many cases, though an exaggeration, may be very near the truth; unless you have some private fortune, or interest sufficient to bring you before the public notice, and that education and intelligence which enables men to use any opportunities offered them; you will be the mere sport of fortune, and failure or success will depend upon circumstances so far beyond your control that few persons can dare to place themselves in such an unenviable position of uncertainty. Such being the hopes at home, let us look abroad and see what prospects are before us. Happily the world is large, and all parts of it not so fully stocked with surgeons as these countries. In our Colonies—Australia, New Zealand, Canada—there is ample room for many, and the demand must increase with the increasing population; and I know many practitioners of only a few years standing who are already in positions leading to large fortunes in Australia and New Zealand. Another advantage of the Colonies is, that there is abundant scope for industry and intelligence, not professional, so that a man who, either from necessity or inclination, gives up the practice of his profession can readily embark in other pursuits more congenial to his tastes, and perhaps more profitable.

I now conclude this brief sketch of your prospects and your duties as students; let me now say a word respecting the duties which we owe to you. For myself and colleagues I think I may say, that we will feel it incumbent on us to the best of our ability to afford you all the assistance in our power in guiding you in the best course to attain a competent knowledge of the several branches we undertake to teach; by selection, by illustration, by such commentary as suggests itself to us, we shall endeavour to render the obscure clear, the abstruse simple, and I trust you will never hesitate to seek for elucidation of any topics in our different courses which require explanation or which may have been accidentally passed over without reference. Our object is to advance you in all your studies, do you co-operate with with us in showing your desire for advancement and your zeal for improvement; your diligence will encourage us in our labour, your success will be our best reward.

CITY OF DUBLIN HOSPITAL.

INTRODUCTORY ADDRESS.

By ARCHIBALD HAMILTON JACOB, M.D.T.C.D., F.R.C.S.I.,

OPHTHALMIC SURGEON TO THE HOSPITAL.

GENTLEMEN, DIRECTORS OF THIS HOSPITAL, AND STUDENTS,—The duty which has been relegated to me to-day, of offering to you a welcome to this institution, and of tendering to you, in the name of my colleagues, their best advice and their most cordial assurances of good-will, impresses me at the same time with feelings of gratification in that I am considered worthy to occupy this post of honour, and with diffidence as regards my own sufficiency for the task; yet, while I am not forgetful that I stand in the presence of those whose Nestorian sagacity would confer on their advice a prestige which mine cannot have, and whose experience would impress their counsel on your rememberance with a force which I do not hope for, I venture to trust that the place which I occupy, of honourable association with your teachers, and of intimacy with yourselves, may afford me the opportunity of addressing you in the twofold capacity of your instructor and your associate—and that thus I may hope to escape the suspicion of prosing over generalites or preaching matter-of-course admonitions which I do not myself feel.

I think I shall be doing better service to my student hearers in confining myself rather to the homely suggestions of which they must necessarily be in want, and which are none the less valuable because they are trite, than by diverging into the discussion of questions of abstract science, admittedly more novel and interesting, but unsuited, as I think, to the audience which I address; and, in doing so, I must anticipate this occasion, and look back on the circumstances which have induced yourselves or your parents (for you) to select the profession which you have come to us to learn.

There may be, perhaps, one or two among you who approach the healing art with other aspirations than the getting of your living, who, having the prospect of an income independent of your earnings, have, nevertheless, undertaken the profession of medicine with the praiseworthy object of employing your mental powers in a pursuit which may qualify you to be useful members of society, and without, perhaps, much care as to your future success as practitioners; you look forward to your studies, in such case, rather as a passport to your position in society, than as the serious business of your life. For such a student the selection of our profession has been well and wisely made, and he may look forward with pleasure to his future prospects. In attaching himself to the medical profession, he secures the status of a gentleman in any society. In Ireland, at least, the physician, whose qualities are such as to command respect, is received as the equal in rank of a member of any profession, and enjoys confidential relations with his clients which no other can boast of. It is honourable, I think, to the medical men of Ireland that, in spite of the temptations of pecuniary necessity, how hard to bear neither you nor I can tell, and notwithstanding examples of comparative affluence attained through the agency of low class practice elsewhere, they have refused to degrade medicine—a gentleman's profession *par excellence*—to the level of a trade, or to merge their own and their profession's dignity in the race for money which has brought down, in some places, the medical man almost to the position of a druggist or a green-grocer.

But I congratulate you especially, because medicine, as a pursuit, confers what no other profession possesses in so great a degree—the satisfaction of doing good to one's fellow creatures, the exercise of the humanity which is, I hope, possessed by you all, and the cultivation of which affords that pleasure which is the reward of a compassionate act.

Believe me, this feeling is more than mere sentimentality, it is a real requital for the gratuitous and arduous services to the poor which the medical man is called upon to give, and it will be often the only reward you have to expect for much trouble and annoyance. But is it nothing to be able to reflect that you have preserved the power of a father, the only barrier, perhaps, between his family and the workhouse; that you have called back to life the child, the only comfort for a sorrow-stricken and widowed mother; or that you have alleviated the agony that has racked the sufferer in his night-long sleeplessness? I know that if there be one among you so callous to the sufferings of others as not to experience supreme gratification at such a recollection, it is because you have not been afforded the trial necessary to develop this phase of your better nature. In my own special duty in this Hospital, not more, I dare say, than in the experience of my colleagues, the picture is only too familiar of the care-marked anxious face, appealing mutely for the promise that the eye-sight, on the restoration of which depends the daily bread of the family, can be preserved, or that the disease which threatens blindness and defor-

mity to the child can be stayed; and when I think of the story of misery and sorrow which underlies most of such cases—of affections as warm—hopes and fears as strong, in these poor people as ever animated the breast of nobility, I feel that what I am instrumental in doing is not lost to me, either here or hereafter. Think of this, and remember that a rough word, or careless expression, which might thoughtlessly escape you, may send back your hearer to the miserable, squalid, comfortless home with despair at his heart. Should you never earn a guinea by your profession, should you even devote your whole life to such deeds of benevolence, the field for your kindness is only too wide, and the gratitude of those whom you benefit will carry with it no less a blessing because it is the only return which the poor man can make.

Very few persons, however, could devote their lives to such good works, and, I presume, the great majority of you, gentlemen, are intent on the serious business of life, the pursuit of fortune, in the form of specie, and that under the transforming power of that all-mighty talisman you hope to make for yourselves pleasures, friends, and fame. Medicine is for you practically a transmigration of fees, and you are, no doubt, strongly imbued with the conviction, that having acquired a sufficient proficiency in that sleight of hand, friends and fame will be cheap enough. Shakespeare says—

> "Oh! what a world of ill-favoured faults
> Looks handsome in three hundred pounds a-year."

And it will be hard indeed if, with our aid and your own exertions, you cannot absolve yourself from your shortcomings at so small a price.

The medical profession is not an affluent one, there is long waiting, and great competition, the public expects a great deal from it and gives it very little; yet there is no profession on which a man of fair abilities can embark with more certainty of acquiring a competence. The various careers which are open to you, once you have obtained entrance into it, have been already recapitulated for you elsewhere, and I shall therefore not allude to them.

You have come to us with, we will hope, such a general education as may fit you for a gentleman's profession, and you have honoured us by your selection of us as your teachers, and you ask us to make you physicians and surgeons fully, thoroughly, and perfectly versed in our art, and competent to undertake the treatment of disease or injury in any of its forms. If this is your expectation I must confess that you have overvalued our powers, and you hope for gifts from us which can only be found with yourselves. We hope that you will find that the confidence which you have reposed in us has not been misplaced, that we are able to afford you access to every form of disease, to give you the practice and experience which only personal contact with patients can afford—to direct your observation to the essential characteristics of each disease, and to instruct you in the most approved courses of treatment of each affection. All this we can promise to do for you, but to make you sagacious physicians, intrepid operators, learned pathologists, and judicious surgeons, we can give you no guarantee, because the most potent of all influences, your own will, may be wanting.

For what purpose, may I ask each of you, have you left your homes, paid your money, and devoted your entire time for the next four years? Answer to your own minds truthfully and frankly the all-important question, for it is on it that your whole future life—success or failure—independence or penury—high rank or inferiority—comfort or misery—fame or insignificance—depend; and if you deceive yourselves now by an uncandid reply to it your prospects will assuredly be marred. If the purpose of any of you is nothing but to obtain a legal title to kill or cure, you never acted more unwisely in your life than in carrying such a policy into the practice of medicine, for your career may be safely and surely foretold as one at best of contemptible mediocrity, if not of absolute failure. I call to mind the year of the potato famine in Ireland, when a large sum of money was granted by the Exchequer for the execution of public works to afford employment and save the poor from starvation. The large proportion of the able-bodied peasantry, who entertain a chronic objection to work in any form, hoped that they would have received weekly pensions for doing nothing, and as may be assumed, were not particularly zealous in labour when they found themselves compelled to earn their wages. I was then a school-boy, and was often amused, though you may suppose my own standard of labour was not high, by the make-belief of working of some of the labourers. One day I said, "I see you are at hard work, Pat, what is it you are doing?"—"Oh! nothing sir," was the reply, "only going through the signs," meaning thereby, putting in enough appearance to qualify him for the day's pay. Now I hope you have come to us for some better purpose than this process of "going through the signs." The student who is bent only on getting the double dip in the gilding solution, and the legal title to accept fees, will commence his winter's work with a fortnight's holidays, just to pass time till the business begins. He will then set to work in earnest—extricate himself from bed at about half-past nine o'clock, and attire himself in the quiet and highly professional costume which such gentlemen affect. He will adjust with nicety the grouse's feather in his wide-awake, arm himself with his short pocket-stick and cigar-case, and lounge down to the hospital at about eleven o'clock. He will then "go round" with the last of the surgeons and enrich his mind with all the valuable experiences in medicine and surgery which may be had by animated private colloquy about the fire-place, and by occasionally craning his neck over somebody's shoulder to observe minute pathological appearance at a respectful distance of about five yards. Having then recuperated his exhausted energies with a glass of beer, he will saunter down to the dissecting-room and occupy the rest of his working day till half-past three, inhaling a cigar or drawing sketches of the lecturer in his note-book, if indeed he possess such an appendage. At four o'clock it becomes his imperative duty to "show himself on town," and to disseminate the radiance of his presence till dinner-time. Proceeding thus he will leave town for the Christmas Recess a fortnight before Christmas, and return from the country three weeks after New Year's Day. Again he will retire from the scene of his labours a week before Good Friday, and recommence his studies ten days after Easter, prior to his final disappearance in the beginning of April. In about six years, by exhibition of several salutary courses of private grinds, and the final polish on the "strap," he trys his luck with the examiners, and, perhaps, to his own astonishment, comes out of the College portals a full-fledged surgeon.

And what then? From that day the real competitive examination, which no medical man can shirk, commences.

> "The next day comes a frost,
> A killing frost, and when he thinks, good, easy man,
> Full sure his greatness is a ripening,
> Nips his bud, and then he falls."

He may hope that with caution and the keeping of his own counsel he can pass muster, but so surely as the opportunity, which the competent man seizes to make friends and prove his skill, is afforded to him, so surely will his ignorance, incompetence, and inexperience manifest itself, and bring disgrace upon him. In every class of society his services will surely be estimated at what they are worth, and in none more certainly will his calibre be taken than amongst his poor patients. Until, at the expense of his patients and of his own professional character, he has acquired in some small degree the experience which his probation as an hospital student ought to have given him he is in constant apprehension of making a mistake—endeavouring to escape from coping with cases which he feels himself incompetent to deal with, and running to text-books and manuals for the common place information which he ought to have mastered within his first two years of study. Let me hope that by this picture your "withers are unwrung." Let me earnestly advise you to start with the fixed determination to avoid such a prospect, and let me beg of you to strengthen our hands in the endeavour to do ourselves

and you credit, by entering from this moment on a different career.

Work, work, work.—This, gentlemen, is the one sure and only secret of success in the profession. If your abilities be ever so transcendent, they rust without work; be they ever so humble, by persevering, energetic, untiring labour, you will not fail to stimulate them into great results, and gain for yourself great honour. Be your manner, your rank, your means, in advance of those of your fellows, yet will you see them outdone by the patient zeal of those who possess none of these qualities, but the one golden secret of hard work.

Look back on the profession that has past, or that now is, and you cannot but confess that what I say is true. You may see there men of tact, skilful manœuvrers, subtle flatterers, in position of fair pecuniary promise ; you may see men of acknowledged ability, coupled with industry, who have outstripped their neighbours who possessed the powers of application, but not the talent. But you cannot lay your finger on the name of a single man who has occupied, or now fills, the highest position in the profession, who has not brought to bear, in the competition, persistent and patient zeal. Don't be led away from this fact by the popular idea that you may atone for idleness or ignorance by speculating in a carriage and horses, by, as the saying goes, "driving into practice." Sir Walter Scott heads one of his chapters with the following verse :—

"All live by seeming.
The beggar begs with it, and the gay courtier
Gains land and title, rank and rule, by seeming;
The clergy scorn it not, and the bold soldier
Will eke with it his service. All admit it,
All practice it, and he who is content
With showing what he is, shall have small credit
In church, or camp or state. So ways the world."

No doubt by such means you may attain to unrespected mediocrity, and may, perhaps, turn third-rate qualifications to the best account, but it seems to me that the necessity for keeping up a false position, the discomfort of living a life of studied deception, the anxiety to maintain an establishment equivalent to such display, and the risk of failure, financial and professional, in such a speculation, makes it a more arduous means of attaining to rank than the plainer and infallible, if less brilliant, career of the industrious, energetic, sterling working man.

I need not go beyond the history of this institution for a most cogent, convincing, and encouraging proof of this statement in the person of my father, Dr. Arthur Jacob. Fifty years ago my father started on his professional struggle, a younger son amongst the twelve children of a provincial surgeon ; it is needless to say that he had neither personal interest nor means greater than any one of you. On the strength of a few letters of introduction, and of his own self-reliant determination to earn for himself fame, rank, and independence, he entered on the up-hill race with energy and ardour. Patiently toiling day by day as a demonstrator in the school of Trinity College, and working night after night at the literature of the profession, and in the domain of original investigation, he crept forward towards the position of honour which he had set before him. Fearless of obstacles, because he acknowledged no impossibility, he was received without hesitation, and in the fullest confidence as the associate of such men as Marsh, Graves, and became the founder, with them, of the Park-street School of Medicine. In a few years, owing principally to his untiring energy, this school had become one of the largest and most justly celebrated of the medical educational institutions of Ireland. Leaving it for the first position as a teacher in Dublin—the Professoriate of Anatomy and Physiology in the Royal College of Surgeons—for forty years he maintained a steady advance into the confidence of the profession, till but a few months since the friendless and portionless student of fifty years ago was content to rest in the enjoyment of his honoured old age. An investigator in Physiology and Anatomy, quoted and respected all over the world ; a surgeon whose fame was not confined within the boundaries of Europe ; a professor with whose renown every student whom he had ever taught is proud to couple his name. Three times President, and for a quarter of a century the trusted councillor of the Royal College of Surgeons in Ireland. For twenty years the fearless and uncompromising public protector and censor of the profession in Ireland ; and, lastly, one of the original founders of this hospital, of itself a lasting monument to his energy, talent, and enterprise ; he has retired from the scene of his labours loaded with every honour which it was in the power of his brethren to confer.

And by what means was this success attained? To some extent, no doubt, by natural ability, but principally, and in the greatest degree, by work—close, unremitting work—indefatigable perseverance and energy. One of his favourite aphorisms, and it embodies in three words the secret of his success, was, "Can't means Wont." Starting with the great principle that no achievement, for the accomplishment of which God has conferred the requisite gifts, is insuperable, he bore down, by his astonishing energy, difficulties which would have confounded another, and, by his persistent application, overcame obstructions which, at first sight, would seem insurmountable. To him an obstacle was a something to be conquered, and not a hindrance at which to be discouraged.

And all by active work. No matter where you may be placed, there is still a field for your work. Competition to outstrip, a position to make, and honour to attain. You will, I hope, excuse the vanity of offering another proof in the person of my father's brother, Dr. Jacob, of Maryborough. Animated by the same indomitable spirit and energy of my father, my uncle occupied a totally different position; he started in life as the successor of his father in the surgeoncy of the Queen's County Infirmary at the age of 19; he did not fear to face his public duties or his private responsibilities, strong in his determination to carry all difficulties before him. I need not trace his life for you through forty years of unremitting labour, suffice it to say, that before his death he occupied for many years, with complete efficiency, and with credit to himself, every public appointment within reach of his residence; that he educated no less than thirteen children ; that the demand for his services came from the most distant parts of five counties, and often even from the metropolis itself; and that he died honoured and regretted, I may say, throughout Ireland, leaving to his family no less a sum than £23,000. I speak in the presence of those who knew both gentlemen well, and they will bear me out in the statement, that of tact, or the art of truckling to the public, both were totally ignorant, and that they took special pains to express their utter contempt for that process ; ostentation and display they equally objected to; and, as for "driving into practice," my uncle kept just as many, and such equipages as were suitable to the wear and tear of country practice; and my father kept none at all, nor would he enter them if he did.

No ! it was to work, and work alone, that these men owed the position which they left behind them, and each and every one of you who bring to the profession their aphorism, that "can't means wont," their determination to overcome every obstacle at the cost of any amount of labour, may surely look forward to the goal which they have reached.

It is only for the idler that work has terrors ; to the industrious man his business is a pleasure, and the completion of his object is his reward. If steady, daily work were an irksome task, should we not see commercial and professional men leaving it the moment they had acquired an independence to enable them to do so; yet, on the contrary, we see them keeping to their business as a source of enjoyment when every pecuniary incentive has ceased. Idleness (partial or absolute) is simply a habit that gains strength as it exists, and may, with the slightest exercise of strength of mind, be cast aside with other bad habits. If, then, you hope to soar above mediocrity, to be something better than mere medical nonentities, register from this hour a vow to go straight to the position of honour by the plain high-road of hard work.

Lay out for yourselves a time for work, a time for sleep, a time for play, and let no persuasion induce you to depart from that rule, and your own experience of many of your acquaintances here will show you that you may be an agreeable companion, and carry with you the respect, as well as the affection, of your fellows without abating the least tittle of your zeal, or departing for one moment from your prescribed rule.

My exhortation, however, gentlemen, would want all its force if I did not offer you every opportunity and incentive to turn the spirit which I have endeavoured to excite in you to the best account of your professional progress. You may remember the Arabian tale of the poor man who was invited to the house of the Barmecide, to a great banquet, and when his appetite had been excited by descriptions of the luscious flavour of the viands and the fragrance of the wines, his host seated him at the table, and commenced in dumb-show to help him to imaginary dishes and unsubstantial liquids, all the time exhorting him to eat heartily, and pressing upon him fresh helpings of visionary fare. I am not inviting you to a Barmecidal feast, for I think what our Hospital can afford you in opportunity for instruction, is sufficient to satiate the student most voracious in his appetite for knowledge and experience. We do not boast to you of the magnitude or extent of our hospital, though it is as large as most, and larger than many, of its kindred institutions in Dublin. It is but a pigmy beside some of the giant hospitals elsewhere, and it is well for us and for you that it is so, for that very fact contributes in no small degree to the superiority as a medico-educational institution, which we maintain that it possesses. We have less than a hundred beds for the accommodation of many hundreds of applicants, and that very limitation to the resources at our command, obliges us to receive only such cases as are most urgently in need of hospital relief, and prevents us occupying the beds with cases of old standing or of incurable disease. We are thus compelled, as the commercial phrase has it, to " turn our capital" as quickly as possible—to retain patients no longer than their state demands, and to replace them by others as soon as possible. Our hundred beds, distributed as they are, will, I assure you, give your mental digestion more than enough to do to assimilate the facts, experience and instruction, which they will afford—yet will they not tend to bewilder you with the vast variety of totally dissimilar diseases as the wards of very large hospitals do. The system adopted in very large hospitals, as far as my experience goes, fully recognises this objection to them as educational institutions, for it is the usual course, inasmuch as it would be impossible even to walk with the surgeons through the great ranges of wards, for the student to attach himself to one particular surgeon, and one or two wards, the attention to which will be within his scope. Very often, therefore, he sees, during his whole hospital service, little else than the practice of that surgeon, and necessarily excludes from his studies the specialities not included in his range. A couple of winters since, I called at one of the largest London Hospitals, to see a second year's student whom, I have reason to know, was more diligent than the majority of his fellows. On asking him to show me the ophthalmic wards, I discovered that he hardly knew where they were situated, or what day or hour they were visited. He had been for the two years so busy as dresser to one of the surgeons, that he had never seen a single case of eye disease.

With us you will see, as it were, the picked cases, both in medicine and surgery, and you will be instructed, not by one or two, but by ten Medical Officers. For the soundness of the purely medical practice of our hospital the name of Charles Benson speaks to you of diagnostic sagacity and skill, matured by years of experience, and built upon the foundation of a scholarly mind, of observant and careful treatment, endorsed by the verdict of all-trying time, and of judgment as a teacher, which has left its mark on the minds of hundreds of students like yourselves. Your confidence in his colleague, Dr. Beatty, the ex-President of both the Royal College of Surgeons in Ireland, and of the King's and Queen's College of Physicians, and for many years the Professor of Obstetric Medicine in the School of the College, rests on a wider base than any eulogium of mine. Guided by them, and stimulated by their anxiety to earn for themselves your good opinion, our assistant-physicians, Dr. John Benson and Dr. Hewitt, could hardly fail in maintaining and improving the high character as teachers which your approval has accorded to them. Theirs will be the duty of labouring with you for the elucidation of every detail of the cases under their charge, and their task will be rendered easy by the support they will receive from their superior.

We are, moreover, enabled to offer you from this time forward a valuable addition to the opportunties for your instruction in a special department of practical medicine, and one which, if you be wise, you will regard as an important increase to your field of study. The benevolence of the late Mr. John Drummond, one of our Directors, from whose generous bequest of £1000 the new and commodious wing of the hospital has been erected, has relieved us of one of the difficulties under which we have hitherto laboured. This division of the institution, which is necessarily separate from the building in which we are, will be devoted to the accommodation of fevers and other contagious diseases—a class of affections which will form a large percentage of your future practice, and which being peculiarly within the grasp of medical treatment, require your special and close attention now.

This addition to our accommodation was much required for several reasons. In the first place, it enables us at once to remove from immediate contact with other patients, cases which, from their infectious nature, might be really dangerous, or might excite apprehensions almost as injurious as the reality itself. Such necessity often arises, both in persons admitted suffering from doubtful disease, and in those in whom the affection becomes developed after admission.

In the second place, the neighbourhood in which our hospital is situated, and by the inhabitants of which it is mainly supported, will derive great benefit from possessing a place where servants and the poor may be speedily and easily disposed when taken ill. The separation of such sufferers, even before the nature of the affection is fully determined, from the same houses and the same rooms as healthy persons, is of vital importance in preventing the spread of the contagion. These wards, placed close to themselves, attended by medical men whom they know, and in whom they have confidence, will not have the same terrors for them as the name of a fever hospital, and the exhaustion consequent on removal to a considerable distance, the fear of which often renders it impossible to stir a case at all, will be obviated.

Lastly, the hygienic principles which have of late received so large a share of the attention of the profession, have been applied to the erection of this building, and a system of ventilation and of cleanliness has been adopted, which reduces the danger of infection to a minimum, and will enable you to examine closely these cases without fear of carrying away the disease with you.

Of our capability to afford you the highest standard of surgical education, you have, before you came here, doubtless, satisfied yourselves. The name of Mr. Hargrave, the senior of our staff, the occupant of the first Surgical Professoriate in Ireland, and the highest authority in operative surgery, is worthily succeeded by that of Dr. Geoghegan, whose talents as a surgeon (and, if I might select a special subject to which they have been more ardently applied, I should name the difficult and extensive domain of the diseases of the urinary organs) are only surpassed by his world-wide fame as a Medical Jurist. To men of this stamp Mr. Tufnell, the third of our staff, whose experience as surgeon, and as an examiner in the Royal College of Surgeons in Ireland, is rendered more and more valuable to you by his professional connection with Her Majesty's service, to which many of

you look for employment, does not even come second. Of my immediate senior in the medical staff of the hospital, Mr. Croly, the least that can be said is, that he has evinced, during his connection with it, all the attributes which you should hope for to make you good surgeons and successful practitioners. His presence of mind as an operator, his astuteness in diagnosis, and his judgment in treatment, are within your own observation, and you can all appreciate in him the energy and diligence which I have pointed out to you as the first essential of success in your profession. Even the department of Dental Surgery, most necessarily a part of country practice, and yet generally ignored in your instruction, is not neglected, for we have confided it to a gentleman who bids fair to earn for himself a name, did he not already possess the honourable patronymic of Maclean. After my enumeration of the gentlemen composing our staff, need I ask, whether, in your opinion, any department of your study is unrepresented, or any place in our administration unworthily occupied.

Scarcely a worthy colleague of such men, I, myself, complete the roll, and represent a branch of your surgical instruction, without which your education would, in my opinion, be incomplete. If I possess no merit in myself, I at least may claim the reversion of experience and erudition in my father, which I look forward with earnest hope to increase and improve as years roll on. If I be nothing more than a faithful mirror reflecting towards your minds with its pristine brilliancy the talent, the research, the experience, and the lifelong labour of Arthur Jacob, I shall, in this capacity, be not unworthy of association with my colleagues. To make the surgery of the eye and ear a favourite page in your studies, a well-thumbed folio in your books; to give to it in your minds the importance which, practically and theoretically, it deserves; to stamp the City of Dublin Hospital, through your skill in my own speciality, as a school of Ophthalmic and Aural Surgery second to none, are objects nearer my heart than you may think, and it would be unworthy and inconsistent in me for their attainment, to fail myself in practising to the full the lesson of energetic and determined work which I have preached to you to-day.

I have thrown down the guantlet to all-comers to excell us as teachers. I now challenge each of you to conquer us in ardour and assiduity. If we are careless or unprogressive or indolent, we cannot but feel abashed if we see you active, diligent, and anxious to learn. Keep steadily before you the remembrance that you have now entered on a man's pursuit, and in competition with men. Look to yourselves, for should you give way to puerile tastes or childish and senseless pursuits, you will assuredly be shouldered aside by more vigorous and manly minds. Repudiate as you would the prompting of the evil one, the plea for ruinous dissipation and contemptible frivolity which, in the Proverbs—that you "must sow your wild oats," and that "you cannot put a young head on old shoulders,"—is repeated in your ears by thoughtless people. You need neither be hermits, unsociable, morose, or unpleasant companions, but you may be, and if you are invested with a proper ambition, must be gentlemen in mind and taste, and determined workers in the strength of your mind and the greatness of your objects.

LEDWICH SCHOOL OF MEDICINE.

INTRODUCTORY ADDRESS.

By J. H. WHARTON, A.M., F.R.C.S.I.,
SURGEON TO THE MEATH AND CORK-STREET FEVER HOSPITALS.

GENTLEMEN,—The task of inaugurating the present session has devolved upon me greatly to my surprise, and perhaps to your disadvantage. The last occasion on which I discharged a duty similar to that on which I am now about to enter, seems so like an event of a recent date that I scarcely believed the time had arrived for the occupation of the position in which I now stand. Having, however, been assured and convinced to the contrary, I am here at my post, and ready to attempt the charge which, even the most accomplished and experienced lecturers are disposed to shrink from. I *know* only of one who felt *no hesitation*, in the preparation and delivery of an introductory address. I allude to the late Professor Porter. To him lecturing seemed a pastime. Even on the last occasion on which he opened the session at the Meath Hospital, and this, too, at a time when he had not wholly recovered from a severe accident, his address, though scrupulously prepared, was delivered as if extemporaneously, without a break, without a fault. I need not say that skill like his was the result of scholarship, mastery of his subject, and of his profession. But it may be asked, what peculiar difficulty is connected with this duty, or why is it that, at all events, there seems to be a reluctance to undertake the delivery of a lecture such as that which the present period exacts. The question is, I think, easily answered; the selection of a subject fitted for a medical class, necessarily composed of members differing from each other in various particulars, such as age, experience, habits, education, standing, and acquirements. Thus, some of the gentlemen before me are, no doubt, commencing their career; others are somewhat advanced in their course, and others still more so. Hence, what is adopted for the group first specified is perhaps useless, or at any rate tedious to the second and third. The lecturer is thus conscious that he labours under a disadvantage which, indeed, would not only be irksome, but intolerable, were it not that he is at the same time aware of the courtesy which the senior members of a class, so willingly and generously guarantee to their junior companions, whether at the theatre, the dissecting-room, or the hospital. As regards myself, it were an unpardonable omission, were I to neglect to offer my tribute of acknowledgment for the exercise of this courtesy, which, as on all past occasions, I am sure to experience on the present.

So much by way of preface and explanation. It now concerns us to select a subject for our mutual consideration, and, as it appears to me, there can be found none more profitable than what is included under the term "school duties." In other words, what is the purpose for which you and I, in common with my fellow lecturers, meet here together from day to day. I apprehend the question admits but of one answer—on your part to receive, on our to afford instruction. Let there be no mistake on this point. I answer for my colleagues more decidedly than for myself, that we are ready and prepared to fulfil our portion of the compact. Can I, with a like amount of confidence, assert the same for you? First of all, before you reply, ascertain by consulting your own consciences, whether you not only have selected medicine for your profession, but whether you have determined to abide by it. I say determined; because if your minds be not fully prepared to encounter the labour of acquiring, by diligent perseverance, a knowledge of the subjects which shall be brought under notice, your progress will be unsatisfactory and wearying. Be slow, therefore, to resolve, but once resolved be determined. In discussing the subject which we have chosen, I shall endeavour to make it chiefly subservient to my own special department—surgery. And here it may be profitable to enquire what is surgery? To many, this may appear a most unnecessary digression, but in reality it is not so, as students are more than ever inclined to substitute operative surgery for surgery itself. The former, indeed, is a very important and indispensable constituent of the latter, but no more. Every one who practises the art should be a dexterous operator, and if ambidexterous, so much the better; but he should first be enabled to form a sound opinion as to the propriety of undertaking or advising any operative proceeding whatever; otherwise, he may indeed become a most brilliant operator, but a very indifferent surgeon. An accomplished surgeon should, and must, be also an accomplished physician, in order that he may bring to bear upon

any case submitted to him, his reasons as derived from study and experience, for or against operation, and to decide accordingly. In short, surgery seeks to save men's lives and limbs, and does not sanction the use of the knife till all other means fail. No doubt there are exceptions to this as to all general rules. It is sufficient to mention stone in the bladder, hernia, foreign bodies in the larynx or trachea, and a host of others, which, for the most part, require surgical interference. But even in these and such like, the recourse to cutting instruments is, as far as possible, provided against. Thus, lithotrite, in many cases, is made to take the part of lithotomy. The taxis is enjoined and practised prior to the division of the stricture in strangulated hernia, so as to save, if possible, the necessity of an operation. While, therefore, as surgeons, you will never sanction avoidable operations, you must be prepared to perform any which necessity demands. The sphere of surgery is much more comprehensive than is generally supposed. It is a part, and an invaluable part, of medicine at large, the practice of which it may be said to supplement. No man can lay claim to the designation of a true disciple of surgery, be his knowledge of anatomy what it may, his skill as an operator as distinctive as can be attained, who does not embrace and know how to exercise an enlarged experience derived from what he has seen and studied at the bedside in the medical, as well as in the surgical, wards of the hospital, and observed at post-mortem examinations. Let me illustrate my position by an assumed example. A patient consults a surgeon, an expert operator, on account of a strumous disease of a joint or organ, and as it has baffled all medical treatment, he is really, or apparently, most anxious for its removal. After what was considered a suitable examination, the surgeon consents to the proposal, and arranges to remove the organ. Unknown to him, and after he had made the arrangements just referred to, the patient voluntarily, or at the request of a friend, consults another surgeon, who makes an accurate examination of his chest—an examination which the former had neglected, through his ignorance of medicine—and there finds that, although there may be no *absolute* evidence of disease of the lung, yet there is a perceptible shade of dulness under one clavicle, and with it an inequality of the respiratory murmur, as compared with the opposite side. This examination decides the point. The proposed operation is not regarded with approval, to the discredit of the former surgeon, the credit of the latter, and, above all, the benefit of the patient. Which, now, of these two is the true surgeon is a question which needs, indeed, no elaborate reply. Do not, however, misunderstand me. I am not discouraging operative surgery. On the contrary, I exhort you, with whatever influence I possess, to take every *becoming* opportunity of witnessing, and practising it for yourselves on the dead subject, so that you may be prepared for the emergencies which surely await you in practice. Keep it, however, in its proper place, to be had recourse to only when required. Do not dishonour it by abuse, or undervalue its power. Keep it in reserve till the time for its display shall arrive, and that time your surgical experiences will indicate. If brought into requisition too early or too late, your judgment is at fault, and loss of life may be the result. Thus, while you learn to regard operative surgery as of such vast import, you are not to consider it as if in itself it constituted surgery. It is in some cases its last, in other, its primary and only resource; and in no instance is it to be practised unless the end sanctions the means. I have adverted to this point, not only to guard you against entertaining erroneous notions of the place which it holds in the domain of surgery, but also to divert you from the practice, too prevalent, of neglecting, for its sake, present advantages. How often do the *eclat* and attractiveness of operations effectually tempt students to absent themselves from their own hospitals, and so, not seldom, lose opportunities which may be, at least so far as their educational career is concerned, of much more intrinsic value. As students, it will be of much greater importance to witness and assist in the reduction of a dislocation or fracture, than to see a most brilliant operation ; and yet to be present at the latter, the former is, or may be, lost.

Enough has been said upon this point. I now proceed in the investigation of our subject, directing, as I have already intimated, my observations *chiefly* to my junior hearers. Your attendance here is in order that you may become familiar with anatomy—"the basis of medicine"—and with physiology, its handmaid. I do not here specify the practice of medicine and surgery, because, in this place, principles rather than details will be dwelt on. The diagnosis and treatment of disease is to be learned at hospitals; *studied* at the bedside, and reviewed in the closet. Neither shall I particularize chemistry, botany, materia medica, or medical jurisprudence, because these, or the most of them, form the subject of the summer courses of lectures. In making these exceptions, it is not for the purpose of undervaluing them, or any one of them. This would ill become me, who, for some years, filled, however unworthily, the chair of materia medica in this institution, but for the following two reasons—1st. They do not concern us at present; and 2nd. The commencing student is apt to be confounded at having a multiplicity of subjects—all, no doubt, mutually interdependent, arranged before him, so that no wonder if, instead of entering upon his course with alacrity and spirit, he is almost in despair. In the pursuit of anatomy, let me guard you against an error of no unfrequent occurrence—*the endeavour to attain a knowledge of it without a previous acquaintance with the minute anatomy of the osseous system.* On the occasion of the delivery of the able and interesting "introductory" at this place, on the opening of the session 1866-67, by my colleague, Mr. O'Leary, he did me the honour of recording a piece of advice which I had given him when a first-year's student, as summed up in the following three words—"Learn your bones." He acted upon this advice, and I need not tell you with what a result. This advice I now repeat. If by the 30th April, 1868, you will have rightly and truly set this foundation-stone of anatomy, you will have learned enough of this branch of your education for the present winter session, and in 1868-69 you will have attained to a substantial knowledge of human anatomy, to be perfected readily on the expiration of your third year. Be content to acquire so much thoroughly, session by session, and be assured you will outstrip your fellows, aye, and have time to spare, who impetuously, and without method, beginning at the wrong end, have been unable to acquire an insight into its wonders. This position admits of a simple illustration : two men, equally equipped, weighted, developed, and aged, challenge each other to walk a certain distance. They start together, both are very sure of success, but one *is rash and over-confident*, the other *cool and well trained.* The former sets out at the top of his speed, and quickly gets out of sight of his rival, but presently is obliged to rest ; the latter takes his time, hastens slowly, for there is such a thing as even to "run with patience," husbands his strength, nears his antagonist, comes up with him, converses with him for a while, finds him lagging, takes leave of him, and promises to have his supper ready. He is true to his word, and wins the day, while the other, from his impetuosity and want of judgment, has not only lost it, but will lose many more, because, if he desires to become a pedestrian, he must retrace his steps and learn *how to walk.* The mode of conducting and following up this study will be fully explained by the anatomical lectures, but this is all. They have studied it for themselves, and to guide you. You, in like manner, are to study it for yourselves, and so as to engrave it upon your memories. This effected, the real difficulty of anatomy will vanish. In the course of your investigation you will be tempted to ask, "what's the use of knowing this and that process, foramen, elevation, depression, roughness, or smoothness ?" Well, the *full* use cannot be realized till the proper time shall arrive, but, meanwhile, if this study should have the effect only of exercising, and, therefore, strengthening your memory, incalculable good will be the result, for in no other profession is a sound memory of more avail. In

connection, and side by side with it, acquaint yourselves no less thoroughly with the composition of bone, its mode of growth, the relative properties of its ingredients in the various conditions of life, the mechanism of the skeleton, the forms of the joints, and the motions of which the movable, are capable and incapable, the shapes of the bones, their strongest and weakest parts, and the periods at which the epiphysary consolidations take place. So much for anatomy. As to surgery, it and medicine, generally, cannot, like anatomy, be solely learned in this place, as already indicated. The study of medicine and surgery is not confined to the hospital, although *there* is the special field for its cultivation, to the school theatre, or to the study, but to one and all combined, so that your rule should, and I trust will be, as in all other branches of your medical education, to observe closely, to study attentively, and to compare diligently, what you will hear from your teachers, gather from the authorities, and examine for yourselves. Lawyers talk much of the difficulties and uncertainties of the law, and of the consequent necessity which thus exists for the exercise and strain of their mental powers, in order to unravel what is popularly known as points of law. I do not question the truth of this statement, but I must be pardoned for hinting that in our profession we, too, have our knotty points of surgery, which no less require the aid of the intense and exquisite exercise of our mental capabilities in order to unravel them ; I say exquisite, because failure on our part may imperil or destroy life, while in theirs, at the worst, as some think, property may indeed change hands, before which, however, there may be recourse to appeal, while with us no such alternative can be available, our conclusion, like the word once sent forth, can never be recalled.

Let me give a single illustration of the truth of this statement. A gentleman who lately arrived from a distant colony (of the legislature of which he had been a member, and who filled various offices with distinction), complained of extremely severe pain in his right groin. Four years ago he suffered from a similar attack, and, as on the present occasion, without any premonitory symptoms. On consultation, his appearance presented every indication, not only of sound, but of rude health. As he came to this country on urgent business of colonial importance, his stay was very limited, and his desire, and, indeed, demand, was to know what was the matter with him, and how should he be treated. A strict examination of the part affected, of the chest, abdomen, and joints, failed to discover any cause. Due enquiry was made as to the state of the secretions, but all failed to throw any light upon the nature of his ailment, nor did this failure in the least modify, much less renew, his anxiety. On the contrary, he was, if possible, more decided, and rightly so, in having an unequivocal reply from his attendants, and information as to the course he should pursue on his return to his distant home. In this emergency it was proposed, as no evidence of disease existed elsewhere, to explore his urethra and bladder, but to this he would not consent. In fact, he ridiculed the idea, as he never suffered from any irritation in this situation. His consultants, however, pressed for their opinion, informed him that, as they were unable, after a close examination of his entire system, to detect the presence of functional or organic disease, they were forced to conclude that the presence of a calculus in its passage from the kidney, was the probable cause of his suffering. After a lapse of two days a mulberry calculus was passed per urethram, to the credit of the attendants, and the satisfaction, if it can be so called, of the patient himself. How needful, then, to train our minds to the habit of reviewing all we hear, see, and read, of drawing, and fixing in the "mind's presence house" true conclusions from the data which *each* case presents; for, unlike law, no two cases in medicine are or can be *precisely* similar in all respects. Without the experience thus derived we can be true, whether to ourselves, the public, or the profession. Cultivate, therefore, with true and becoming industry, the habits of thinking, examining, and judging for yourselves. Be not bound *unreservedly* by the dicta or opinions of others, howsoever distinguished. Be independent, but modest; courageous, but gentle. To resume, what do I propose that you, to whom I specially address myself, should, in the present session, direct your chief attention to, in this place, as regards surgery? Well, the same advice which I have volunteered with reference to anatomy will apply to surgery. Be content to familiarize yourselves with what I venture to call the key to the study of surgery—inflammation ; or, if this should seem too decided an expression, I am quite willing to substitute the following from an eminent writer, Mr. Simon, of St. Thomas's Hospital:—"Assuredly," he says, "it is no exaggeration to say that rational surgery depends more upon a knowledge of the inflammatory process than upon all other pathological knowledge put together." If this be so, can I be wrong in impressing upon you the imperative, the absolute, necessity of acquiring, as far as in you lies, clear views of the nature of inflammation, the mode by which it is established, which is termed the inflammatory process, its results, its treatment. Gentlemen, I have spoken of familiarizing ourselves with, and of obtaining clear views upon this all-important topic. The subject is one of primary importance, its agency is mysterious, and sometimes unsuspected, its progress is now of a lurking or furtive, and, again, of an open and defiant character; liable to be modified by various circumstances, its symptoms and signs are at one time most patent, and at another scarcely perceptible. Injudicious treatment, or a too late recognition of its presence may be, as has happened, fraught with fatal results, or the complete destruction of the organ affected. How puerile, then, how inexcusable will be your conduct, if, in eager anxiety to acquaint yourselves with advanced surgery, you refuse to hew out for yourselves the key-stone of the arch upon which surgery is raised. Believe me that it is interwoven throughout the entire fabric of our art. From the simplest and most trivial and superficial form of whitlow to the most complicated and urgent case of compound comminuted fracture. Its presence is sure to meet you, its influence cannot be ignored, its importance must be acknowledged, and its sway modified, regulated, counteracted. In thus expressing myself, I do not desire to exaggerate, nor, on the other hand, do I mean to assert that every case of inflammation is of equally serious import. I have already stated that it is subject to modification. My simple object is to impress upon you the value of acquainting yourselves with its characteristics. So necessary an ingredient of your education do I regard it, that I hesitate not to affirm, if you shall, at the expiration of the present course of lectures, have acquired a clear insight into its nature, you will, indeed have done well, profitably and sufficiently. Just as in the case of anatomy, your labour, indeed, will not have been in vain. But, gentlemen, I shall not deceive you, the attainment of this knowledge cannot, and will not, be arrived at by any "short cut" proceeding. Inflammation, no more than anatomy, cannot be studied without physiology, and truly so much the better, as thus this seductive science will, as it were, set to music, anatomy and medicine, and most harmoniously will the three concert together. But metaphor apart, and in sober language, such as I have hitherto availed myself of, may I not inquire how the inflammatory process which involves in its consideration a knowledge of the blood and blood-vessels, arteries, veins, capillaries, the nerves and the absorbents, be understood or comprehended without a proper acquaintance with what blood is, its use, characters, composition, and the force by which it is circulated. In like manner must not only the nerves and absorbents, but also the structures and functions of the parts in which this inflammatory process is set up, be comprised within the circuit of your physiological investigation, otherwise you may read and labour indeed, but your time will have been mispent, and your labour profitless, and, therefore, unsatisfying. Soldiers on the march prefer the "ready road round" to "a short

cut." Let me advise you to follow their example, lest you shall become swamped, or lose your way, and with it your patience. I am aware, indeed, that the many take the course against which I have warned you, and the few follow the right path. This, however, does not settle the point, no more than it does in matters of the highest import to man's present good and future happiness. If you have followed me in the plan which I have submitted for your adoption, and will make up your mind to carry it into effect without delay or procrastination, I can promise you a sure reward—that which springs from and is the result of methodical, not of fitful, industry. An arrangement of this or some such kind is most surely required for students of medicine, who, finding that no fixed regulation of study is arranged for their guidance, except so far as the minimum period for their entire education is enacted—four years—are literally ignorant of the mode in which the knowledge they are to arrive at is to be obtained. Thus, every student is required to be acquainted with anatomy, physiology, medicine, surgery, midwifery, botany, chemistry, materia medica, pharmacy, medical jurisprudence, and I know not what beside. But instead of dividing these subjects, and determining that a certain amount should be mastered year by year, the whole is put before him without any specifications whatever. Strange, that while men advocate, and in my opinion rightly so, if properly arranged, a university education, a proposal which manifestly cannot be universally attained, the university *system*, which can be recommended or enforced, is neglected or, at all events not, advocated. According to university regulations, certain terms must be kept, attendance on lectures enforced, and examinations prepared for and passed. Should the student fail in these last, he is either "put back," or, in some cases, allowed to supplement. The Dublin College of Surgeons has made a step in the right direction of late, or rather revived an old provision, by which a student, if he passes the first examination, which is confined to anatomy, physiology, and materia medica, may present himself for the second and final, which is confined to medicine and surgery, at the termination of his fourth year. But even this improvement does not go so far as it might. Had I influence enough, I would divide the curriculum by four, in accordance with the number of sessions, and apportion to each such a division as would correspond to the student's standing, so that at the termination of the last, the whole curriculum would have been embraced—step by step—the most elementary subjects forming the first, and the most difficult the last of its divisions. Students, for their own sakes, should be required to pass a school examination at the conclusion of each session, and be provided with certificates to that effect, from their respective teachers, and without which they should be considered ineligible for examination at the College of Surgeons. This plan would prove of essential value, because it would afford unmistakable evidence to the student that his teacher's character, *as well as his own*, is concerned; that the interests of both are at stake; that they stand or fall together. At present, a student feels that all the work is his, *though in this he is greatly mistaken;* but if my proposal were carried into effect, no such idea could be entertained. The responsibility of both parties would be obvious, and it would insure regularity, order, and method in the imparting and acquisition of instruction, or the penalty of delay and disappointment. It would inspire confidence, and afford a surety to the students that no means will be neglected—even on the ground of selfishness—by the teacher, to promote to the utmost of his power the educational interests of his class. It would palpably bind more closely and mutually, teacher and student. Gentlemen, neither you nor I can effect this change, but you can and, you ought to, institute for yourselves a plan for your improvement in some sort similar to that I have thus faintly, and of necessity, hurriedly sketched. The most attentive of you should on every Saturday—on which day lectures are few—mutually examine each other in the subjects which occupied your attention, and so edify each other, and thus cement, consolidate, and make them enduring; and not only this, but friendships, close, lasting, and it may be, most advantageous, will result. Time will not permit me to make any further allusions to this subject. I shall therefore simply sum up the benefits which I feel would accrue from its adoption. By enacting a definite course for each session, the curriculum would be simplified, confusion avoided, uncertainty and perplexity removed. We should hear no more of such expressions as the following—"I am very well up in my surgery, but Mr. A. would stick me in anatomy;" or, "I know my anatomy well enough, but Mr. B. would reject me in physiology;" or, "If I'm taken in fevers, Mr. C. would give me cypher, and I'd be plucked." All this and such-like would pass away for ever, and with it a class of students familiarly known in the schools as "chronics," who, by procrastination and want of method, put off to their last year what they ought to have acquired in the preceding, vainly imagining that by what they call hard reading by day, and night—when they ought to be in their beds, they can make amends for past errors. Hitherto, gentlemen, I have taken the liberty of departing from the ordinary rules of introductory addresses. In what remains to be said—and it shall be brief—I shall likewise travel somewhat out of the usual course. It is not uncommon on such occasions as the present to descant upon the fitness of those who purpose to enter the portals of the temple dedicated to medicine. I shall not presume to be a judge of such a matter. As a gentleman addressing gentlemen, I shall merely state that in no other calling is there a greater field for the exercise of all that distinguishes education, honour, refinement, benevolence, and sympathy, from their opposites. The profession of medicine, from its very nature, is truly noble and catholic in its aim. It embraces all creeds, all parties, all mankind. No wonder that in ancient times the Romans should have erected a temple to Esculapius, who had, many centuries previously, been placed among the demigods of Greece—an honour not unmerited were it only on account of the fame of his sons, Machœon and Podalirius, who, you know, were immortalised by Homer as "good physicians," and had great skill in the cure of wounds. Let us, too, who live in christian times, regard it as if in some measure worthy of more than mere human honours, for we know that the Divine and Human Founder of Christianity not only healed the sick by His word, but also, in furtherance of his mission, appointed and empowered those whom he sent, to do likewise. Apart from every other consideration, esteem it very highly for its own sake. It cannot bear defilement. Its present guardians must, sooner or later, give place to successors. Be prepared to fill the gap, and determine to excel your predecessors. It is worthy of your time, your talents, your best energies. Remember constantly it is not a trade, nor is it adapted for traffic. I do not, by this, mean to disparage trade or tradesmen. Far from it, but every man has his proper calling. If his inclinations are towards commerce, by all means let him engage in it heartily; but medicine is not, and cannot be, suited to his taste. If we were all true to our allegiance to medicine, we would not be dependent upon the public, but the public upon us. It affords ample scope for the maintenance of true independence of mind. He who is versed in its mysteries, and able to employ its resources, rules majesty itself, and yet extends, with no less willingness, his aid, to the veriest slave. The high and low, the rich and poor, the noble and the outcast, the loyal and disloyal, the educated and the ignorant, the proud and the humble, the civilized and the savage, the young and the old, "male or female, bond or free," all come within the reach of him, who, prepared for all emergencies, can exert an influence to which no other can approach. It is often objected, and truly so, that, in these countries at least, medicine has but few honours, and as a means of livelihood it is precarious. But what of the former objection? Like virtue, it is its own reward.

Picton, I suppose, was as brave a soldier as ever drew sword, but yet no coronet graced his brow. Not so as re-

garded some of his companions, and they not more worthy. His fame, notwithstanding, shall not perish. If, as he himself said, the coronet were on the breach, his chance of wearing it were as good as any. He preferred devotion to his country and profession, and true independence of mind and action, to any honour, if it were to be gained by their sacrifice. Let us, too, be of the same mind, and guard our post for its own sake.

As to the latter objection, no doubt, they are the few who acquire fortunes by its means; but so it is in other callings. It is not every lawyer who becomes a Lord Chancellor, nor is it every divine who becomes an Archbishop. But in ours no man need be disheartened, if truly qualified by character and education, as is too often the case with others, who frequently find a difficulty in obtaining a competence. This is at all events sure, I think, to any one who conducts himself with propriety, and who has industry, patience, knowledge, and perseverance, under his control. Wealth, gentlemen, is not in itself, nor can it of itself, constitute happiness, or true prosperity. I do not mean, nor desire to be understood to be commending medicine as if you were not to regard it as a means of subsistence. Both you, I suppose, and myself, have, in plain language, to live by it. I am only guarding you against the belief that you will, by its means, be certain to secure wealth. If it be likely to provide a competence, is not this an encouragement? Competence with content *is wealth indeed.* Riches with discontent, *is hopeless poverty.* In addition, medicine offers unclouded happiness, where success attends its administrations, and even when this is not so, disappointment is, at all events, mitigated by the reflection, that its best resources were not neglected. Is it nothing by means of a timely operation to be the means of rescuing from the grasp of the King of Terrors, one about to perish from strangulated hernia, and to restore such an one to his family, otherwise widowed and orphaned. Is there no reward in being the means of affording access of vital air to one suffering from the impaction of a foreign body in the trachea, larynx, or œsophagus, who is on the point of death from asphyxia? Is it a matter of indifference, to be enabled to stem the torrent of the life-blood, as it gushes from a wounded femoral or carotid artery? I envy not the man who, upon reflections derived from triumphs such as these, does not experience feelings which no wealth could purchase, no honours equal, no dignity surpass.

CATHOLIC UNIVERSITY.

ABSTRACT OF INTRODUCTORY ADDRESS.

By H. TYRRELL, M.D., F.R.C.S.I.,

PROFESSOR OF SURGERY.

AFTER some prefatory observations Mr. Tyrrell said:—Now, in order that we may pursue our studies with the best advantages it will be useful for us to have a clear understanding of what surgery is. Is it a science? Is it a pure science? No, certainly not, in the sense of our being able to practice it on principles unerring and exact. It is not, in the true sense of the word, a science, but the application of many sciences, and indeed of all appropriate and available knowledge of whatever kind to the relief of suffering; and recollect that I now speak of medicine in its widest sense, for all its various subdivisions are but arbitrary, one running into the other, and in the great majority of cases requiring to be treated by the same practitioner—for it is only in large communities that the specialties of medicine and surgery can exist. If, therefore, we acknowledge that medicine, and consequently surgery as a part of medicine, is the application of many sciences to the relief of suffering, I think I need hardly remind you that the chance of any of you becoming learned and useful members of our professson depends on this—that you enter upon its study well educated, with minds habituated to mental work, and not with the idea that I, or any one, or all of my learned colleagues, can by our efforts alone make you anything but indifferent mechanics. No, gentlemen, in the words of a great physician, Dr. Latham, who, speaking to his pupils, said—"In entering this place, even this vast hospital, there is many a significant, many a wonderful thing. You shall take me along with you, and I shall be your guide, but it is by your own eyes, and your ears, and your own minds, and (I may add) your own hearts, that you must observe and learn and profit. I can only point out to you the objects, and say little else than—see here and see there." Now, although these most beautiful and appropriate words were addressed to an hospital class, still they are just as pertinent to a class attending a systematic course of lectures on surgery. The lecturer can only say—see here and see there. You must put the knowledge which he lays down in its proper place, to be used when necessary, and to be always ready at call. He can teach you how to learn, but no more. Gentlemen, when we contrast for a moment the present position of surgery with what it has been even at no distant date, what cause have we for congratulation, and with what pride can we refer to the labours and peaceful triumphs of the eminent men of every clime and nation, who, with unselfish devotion, have laboured in the holy cause of humanity, and by patient study have elicited from nature secrets which, even in his wildest dream, the alchemist of old did not dare to hope for; and, viewing with the eye of hope, and confident in the high destiny of human interference, what a glorious field is there not before us, what apparent enigmas to solve, what anomalies to rightly interpret, what secrets to lay bare, what remedies to discover, and thus by increasing the stock of knowledge and adding to the comfort and happiness of our fellowman, we shall most efficiently be following the precepts of our Divine Redeemer, who said, "Love your neighbour as yourself." As early as the fifth century, before Christ, medicine began to be studied as a science. That period of great intellectual activity which produced Thucydides, Socrates, and Plato, Euripides, Tenxis, and Phidias, also produced the Divine Man of Cos, Hippocrates, the father of medicine; but it must be acknowledged that up to the time of Ambrose Pare, that is, the beginning of the sixteenth century, surgery was little more than a rude art, a blind following of the precepts of the ancients, whether Greek, Roman, or Arabian. I am sure some of you will hardly credit me when I tell you that before the time of Pare surgeons thought it better to let the limb drop off than to cut it off, partly on account of the hæmorrhage, partly in consequence of the severe measures adopted to check it, and we find that the usual practice was to apply pitch plasters very tightly around the joint to cause the limb to mortify. To the philosophy of Bacon, by stimulating inquiry, much of the progress made in medicine at this period must be attributed. Of all the sciences that which he seemed to have regarded with the greatest interest was the science which, in Plato's opinion, would not be tolerated in a well regulated community. To make men perfect was no part of Lord Bacon's plan, says Macaulay; his humble aim was to make imperfect men comfortable. The benificence of his philosophy resembled the benificence of the Common Father, whose sun rises on the evil and the good, whose rain descends for the just and the unjust. In the seventeenth century flourished the immortal Harvey, who, by his discovery of the circulation of the blood, did so much for the advancement of all medical knowledge, particularly of surgery, in the practice of our profession. In the eighteenth century surgery did not stand still. France rejoiced in the names of Petit and Desault, both great anatomists and surgeons. The former principally known by his work on diseases of bone—the latter by his treatise on fractures. In Italy, Luncisi, Morgagni, and Scarpa were particularly distinguished by their acquirements. These works are yet classical. But towering far above these, and indeed above every name in the history of the medical profession, stands that of John Hunter. From his teachings we may date a new era in surgery, physiology, and pathology; he was one of those extremely rare characters who only appear at very long intervals, and when they do appear remodel the fabric of knowledge. They revolutionise our modes of thought, they stir up the intellect to insurrection, they are rebels and demagogues of science. In the present century more has been accomplished than we can well believe or even imagine, and bear in mind that we have derived some of the greatest improvements in surgical practice from without, that is, from the labours of men not surgeons. Take anæsthesia. Long before chloroform was introduced, Cavendish, Priestly, and Lavoisier were at work in their pneumatic laboratories, and Davy experimented with laughing gas. Fifty years afterwards an American dentist tried it to relieve the pain of toothache, and succeeded. Faraday next pointed out the great similarity between laughing gas and ether, and after some time another American dentist

used ether as an anæsthetic, and found it so effective and manageable that he at once proclaimed his great discovery, and soon its use became general. But now, Simpson suggested another substance, which has been already used in medicine, and even its name philosophically settled according to the analogy of its formation. Chloroform has gradually superseded ether, and all mankind profits by the change. The pang of anguish no longer unnerves the surgeon in the performance of his duty, unconscious and happy, wrapt in deep and tranquil slumber, the poor sufferer submits to the knife of the operator, and awakes to live again rid of the cause of his misery.

"Can such things be, and o'erspread us,
Like a summer cloud without our special wonder."

Let any one take up the case-book of an hospital and refer to its pages, and he will find that the number of operations is far less than it has been, and, further, that the proportion of recoveries is greater. Why? Because (thanks to the labours of the truly scientific surgeons of the present century) we have a deeper insight into the nature of disease, and a greater confidence in the "Vis medicatrix naturæ." Amputations are now rarely performed for diseases of joints, for if the improved modern treatment of such cases fails to render operative interference necessary, resection, which leaves the limb almost as useful and sightly as it was originally, takes the place of severer measures. No longer are the sufferers with vesico-vaginal fistulæ living examples of the inadequacy of our art to relieve them. No longer are they objects of pity. The ravages of disease may rob the face of its cheerful adornment, but plastic surgery steps in, and with the skill of a Phidias restores the lost member. The subject of surgical aneurism is spared the danger of a formidable operation, and pressure accomplishes with safety what the ligature less effectually did with great risk to life. Tenotomy gives symmetry to the limbs, and restores to their fair proportions those "sent before their time into this breathing world scarce half made up." Who can say what acupressure may effect, and the use of carbolic acid bids fair to render pyæmia less frequent, to deprive chronic abscesses of their danger, and to bring compound fractures into the category of simple accidents. As has been well said by Trousseau, he who has so lately been removed from the scene of his labours and his fame, it is better to advance through shadows than to stand still. Everything has been achieved by boldness and experiment. If we are to continue to advance with giant strides we must learn to appreciate all that has been done by physics, chemistry, vegetable and animal physiology, in the investigation of the laws which regulate organic bodies in health, and it would be ungenerous and untrue not to acknowledge all that has been done for us by the labourers in the field of natural science. Let us recollect that to be idle is to be forgotten, and to be forgotten is to cease to exist. All who aspire to lead must be industrious—the public is inexorable in recognising their servants only by their work. Let us have faith in the future—"Whatsoever a man soweth, that shall he also reap—do men gather grapes off thorns, or figs off thistles." The dying Velpean whispered in the ear of Nelaton—"Let us work always," and if we do, work will be changed into interest, amd interest developed into attachment, and attachment transformed into love—and love will easily conquer all difficulties that beset onr career—*Nihil difficile amanti*. If you neglect now to study, when in after-life you presume to exercise the God-like functions of the healing art, each visit you pay, each prescription you order is a crime and an act of hypocrisy—but on the other hand, the true physician or surgeon exercises a power almost divine. He alone can bid the burning thirst to cease, chase away pain, restore motion to the paralyzed, give sight to the blind, and recall to his fellow-man reason long banished, and restore to society the helpless victim of insanity.

RUPTURE OF THE TRICUSPID VALVES OF THE HEART FROM FRIGHT.—By ALFRED HITCHCOCK, M.D.—M. H.——, æt. two years and nine months, of a sanguine and very nervous temperament, was frightened in the middle of the night of July 16th, 1865, by an alarm suddenly sounded by the steam fire-whistle in the immediate vicinity of the house where she was sleeping. She awoke in terror, screaming and panting for breath, with suffocating paroxysms. She died seventy-eight hours after the fright. The symptoms present were vomiting, dyspnœa, lividity of skin, absence or great feebleness and irregularity of the radial pulse. The heart sounds were too feeble to be heard, or too tumultuous and irregular to be identified. There was loud moist bronchial and tracheal rattle.—*Bost. Med and Surg. Jour. New York Med. Jour*, 1867.

DR. KIRBY'S READY METHOD OF ADMINISTERING REMEDIES, BY MEANS OF PORTABLE MINIATURE DISPENSARIES, AND PREPARED MEDICINES.

WE have paid a visit to Dr. Kirby's laboratory in Newman-street, and have examined the merits of this contrivance, which promises to be a great boon to the profession, and especially to the busy practitioner, and we may add, to his patients also. According to Dr. Kirby's views, the drug treatment of disease has comparatively narrow limits, and he regards the surgery, (surely a misnomer) or as it is but too familiarly styled, the "Doctor's shop," with its attendant evils and inconveniences, as a cumbersome, expensive, and unnecessary appendage to general practice, little in harmony with modern therapeutics, and as imposing a vast amount of labour, thought, and expense, which may well be avoided, on those who, either from choice or necessity, supply the medicines they prescribe. Dr. Kirby starts with an abridgement of the Officinal Materia Medica; he selects those drugs which, by general consent, are regarded as reliable remedies—medicines of known and well tried therapeutical value, and rejects those which are either, we cannot say obsolete, while they are retained in the pharmacopœia, but which have only a secondary value as varieties or duplicates, and are useful only as such, and possess perhaps more interest to the pharmaceutist than to the practitioner. Other drugs, too, are rejected, because their bulk and crudity render them inconvenient to the prescriber, and repugnant to the patient, and are, moreover, he believes, unnecessary to the successful treatment of disease; their therapeutical effects being as easily and more pleasantly obtained by other medicines less objectionable.

An abridged Materia Medica is therefore the first prominent feature in the system, and we think that most of our readers will agree with us in thinking this no disadvantage. The second feature of interest is the method and form in which these selected medicines are combined and prepared ready for administration. These preparations are divided into six groups:

1. Globules containing definite quantities of officinal drugs in powder, pure and simple, such as bismuth, antimony, opium, calomel, &c.

2. Globules and capsules containing liquids, such as croton oil, chloroform, tar, ether, &c.

3. Pilules containing simple drugs, extracts, gum, resins, alkaloids, &c., in definite doses, jalap. res. ext. conii, hyoscyami, &c.

4. Granules containing doses of active medicines, as morphia, nux vomica, ext. aconiti, cupri sulph. &c.

5. Pills, officinal; *Pharm. Brit.*, 1867.

6. Compound pills, according to formulæ in common use. In this group a large number of combinations will be found, such as Dover's powder and Grey powder, iron and quinine, calomel and opium, &c. These preparations already number upwards of 150, and we cannot conceive any more elegant and convenient mode of administering drugs than that which they supply. They are most attractive in appearance, and are deprived of all nauseous taste and odour, by coverings of gelatine and various other non-metalic envelopes.

Many of these preparations are sufficiently soluble to admit of being readily dissolved or suspended in fluids, so that on an emergency they afford a convenient means of extemporising a mixture, draught, or lotion. The Miniature Dispensary, which is the key to this ready method of administering remedies, is a simple but very complete and portable contrivance. It enables the practitioner to carry with him a large selection of the prepared medicines, and to supply the requirements of his patients as he goes his rounds.

These dispensaries are made in several sizes to meet the wants of all classes of practice. One of them especially attracted our notice on account of its large and varied contents; although not larger than an ordinary writing-desk, it contained, besides a selection of seventy-five medicines (we were told it would carry 100), a variety of dressing and clinical instruments, so that with such a companion it is difficult to think of any ordinary case, accident or emergency, which could not, by its aid, be dealt with efficiently. We think Dr. Kirby's ready method and the means by which he accomplishes it, are well worth the attention of our readers. They cannot do better than pay his laboratory a visit, and judge for themselves. The feeling now prevailing, *extra* as well as *intra*, the profession is to do with a minimum amount of physic, and these dispensaries and prepared medicines have appeared most opportunely, and will no doubt be largely employed.

Review.

COMPANION TO THE NEW EDITION OF THE BRITISH PHARMACOPŒIA, 1867. Comparing the Strength of the Various Preparations with those of the London, Edinburgh, and Dublin, United States, and other Foreign Pharmacopœias, with Practical Hints on Prescribing. By PETER SQUIRE, F.L.S., Chemist on the Establishment of the Queen, Chemist in Ordinary to the Prince of Wales and Royal Family, late President of the Pharmaceutical Society. Fifth Edition. London: John Churchill and Sons.

THE value of Mr. Squire's Companion to the Pharmacopœia has been universally recognised. The fifth edition, when it appeared, was sold within a fortnight, and it has been necessary to reprint it. This, however, is but the continuation of a history of a success as unparalleled as it is deserved.

When, in 1864, Mr. Squire first brought out his Companion, the work sold so rapidly, that a second edition was called for in a month. This was disposed of nearly as rapidly, and a third edition was brought out in January 1866, at which time we ourselves purchased the volume, which has lain on our table ever since, and which, from experience, we recommend every prescriber to have close by. Not only so, but we think this Companion should also lie in a convenient place in every establishment, where prescriptions are dispensed. It is just what it professes to be, a *Companion* to the British Pharmacopœia, and it is certain to supersede everything of the kind; for its completeness and accuracy are surprising.

Having spoken so decisively as to its merits, we may be expected to say a few words respecting this edition. In the first place, the publication of the new edition of the British Pharmacopœia this year, which we have analysed in a series of articles, imposed on Mr. Squire the necessity of re-writing his Companion, in order to render it as useful as it had previously been. This he has done with great care, and his success has been pronounced as heretofore. Among the striking improvements, we observe a considerable increase in the number of non-official preparations. The incompatibles and the antidotes to poisons, are now added.

The book opens with an elaborate analysis of the Pharmacopœia, in a tabular form, filling six pages, and showing the preparations introduced for the first time in P. B. 1867; those which were *new* in that for 1864; and those which were derived from the London, Edinburgh, and Dublin Pharmacopœias respectively. A separate table then follows, showing what changes have been made in the preparations of the three College Pharmacopœias.

These points will be sufficient to justify the opinion we have expressed of this edition, though they are by no means all its excellencies. Every page bears marks of the author's care, and his determination to render his book deserving of the reception it has obtained. We need only add, that the volume has been increased in size about one-fifth, though the price remains the same.

REGISTERED FOR TRANSMISSION ABROAD.

The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 13, 1867.

EAST LONDON WATER COMPANY.

THE recent correspondence in reference to the enquiry ordered by the Board of Trade into a complaint against this Company, possesses an interest for the whole of London, and, in fact, for every large town.

Captain TYLER, to whom the enquiry was entrusted, reported that there had been an inadequate supply of water at the Whitechapel Workhouse, as well as at a great number of private residences, for which full payment had been made. Moreover, that this insufficiency had been general in 1864, in which year the Company had been compelled to reduce their supply for several weeks at a time, and that even while the ordinary supply during the week was insufficient, there was no water at all to be had on Sundays.

The Company do not deny these allegations, but urge, in extenuation, that the fault does not rest altogether with them, but is, to some extent, due to imperfect fittings and appliances in the houses. They do not consider themselves to be a "water-police," and consider that some authority should have power to compel the owners of property to provide proper receptacles and apparatus to prevent an unnecessary waste. They have encouraged, by every means in their power, the use of "waste preventers," and have taken such measures as they could to increase their supply. Since 1864, when the greatest deficiency was experienced, they have erected reservoirs capable of containing 100,000,000 gallons, and now possess means of storing 500,000,000 gallons, equal to an extra quantity of 5,000,000 gallons daily for a quarter of a year. These measures have been pronounced satisfactory so far by Captain TYLER, who, however, adds significantly, "it is only to be regretted that they were not adopted at an earlier period." All this seems to us to point to a constant supply as a great necessity, and we have no confidence in any arrangement that will not provide for this. Nor is it in one district of the metropolis alone that this necessity is felt. The East London Company can think of no means of supplying water on Sundays unless the constant service system be adopted. In the far western suburbs, in the mansions of the wealthy and aristocratic denizens of Belgravia, May Fair, Kensington, &c., the same weekly lack of water is experienced. We lately prescribed a warm bath on Sunday in a house, the rental of which was upwards of £300 a-year, and the water-rate was between £9 and £10, yet the patient could not thus be treated, because the water was not turned on on Sundays. There were ample appliances of all kinds in this house, and the three cisterns for storage were large. They were filled at midday on Saturday, but that supply was expected to last for forty-eight hours. An inconvenience of this kind is, in fact, a grievance, while water companies possess a monopoly of supply, and are enabled to enforce their rates. But how much greater must the evil be in poorer neighbourhoods, where capacious storage cannot possibly be provided, and when Sunday is the one day of the week on which the bread-winner has really the time to indulge in the luxury of thorough cleanliness by means of bathing or copious ablutions. Water is one of the first necessities of life. An abundant supply is an essential to sanitary progress. As a mere civilizing and educating agency, it ought to be carried into every tenement. How can this be done without a constant supply?

To return to the enquiry into the East London Company. It was urged that the water had not only

been deficient in quantity, but that its quality was bad and that this had been the cause of cholera and other diseases. On this part of the question, also, Captain TYLER does not acquit the company of blame. We have been told again and again that the chief source of the company's supply was polluted. We have heard, too often, the tale of the reservoir at Old Ford, and of the two open ponds whence an occasional supply of unfiltered water had been taken. But this enquiry has elicited that the company have done what they could to remedy what all must pronounce to be great defects. The open ponds are being filled up, and other suspected sources have been cut off. Their last Act obliges them to prevent soakage from the Lea into their own reservoirs, but it ought not to be forgotten that the Lea is contaminated by sewage of towns far above their works, and this they have no power to prevent. They seem to have laid out large sums in intercepting drains and other judicious precautions, but it is urged on their behalf, and we think justly enough, that without the interference of the legislature they cannot prevent the pollution of the river by the towns above their source, which are quite beyond their control.

In this respect the pollution of the Lea is only an example of the folly and crime that is being enacted throughout the country. All our rivers are being converted into open sewers. Every petty town and village is pouring its drainage into the nearest stream, without the least regard to what may be the consequences. In our worship of local self-government, and our dread of centralization, we are allowing one section of the community to poison others with its filth, and so far as can be seen, are multiplying, a thousand-fold, the dangers of modern life. Surely it is time to put a stop to this. Are we to wait till successive Commissions have exhausted themselves, and all opposing interests are reconciled? The evil being everywhere recognized, would it not be a hundred times better to set about to obviate it? Not that we are prepared to subscribe to the doctrine that the last outbreak of cholera depended solely on the impurity of the water in the East London Districts. Facts have been brought to light, which cannot be explained on this hypothesis. Nay, some facts which are directly opposed to it. Without, therefore, joining in the clamour that has been raised—indeed, without expressing any opinion on that point, we once more commend the great questions of water supply and drainage, to the unprejudiced attention of the reader. It is not necessary to say this or that impurity is the cause of cholera or any other diseases. It ought to be enough to prove that water is impure to rouse the public sufficiently to secure an improvement. Surely it needs no argument to prove that pure water and plenty of it is to be desired, that diluted sewage is not a nice beverage, and that, with schemes in abundance, proposed and discussed, our engineers are capable of carying out some of them. To raise the cry of "wolf" too often, is a policy that too often ends in a sad retribution. We are, therefore, the more reluctant to adopt the hypothesis which attributed last year's epidemic to the East London water, lest, now that the disease has left us, the apathy which has always prevailed on sanitary matters should once more lull the public suspicions, and leave us once more dependant on an inadequate quantity of *contaminated* water.

Notes on Current Topics.

REJECTIONS AT THE LONDON COLLEGE OF SURGEONS.

WE understand that in this year, ending last July, out of 552 candidates presenting themselves in the primary or anatomical examination, no fewer than 134 were rejected and sent back to their studies for three months, being an average of nearly 25 per cent. In consequence of this very large proportion of failures, the Council have lately decided that a fee of five guineas be paid by any candidate rejected a second time.

PUBLIC HEALTH FOR THE WEEK.

As last week, we have to record that the mortality of London was under the average. The present returns are less by 171 than the estimated number, the deaths registered being 1196, the average number for that week being 1367. The proportion of deaths from the different diseases were as follows:—From zymotic diseases, 282. There were 54 deaths of children from scarlatina, which was most prevalent in the northern and southern districts of the metropolis. Smallpox produced 12 deaths; measles, 32; whooping-cough, 30; typhus, 51; and diarrhœa 23. Phthisis occasioned 143 deaths; bronchitis, 127; pneumonia, 80; and diseases of the heart 45. There were 143 deaths from horses or carriages in the streets during the forty-four weeks of the present year, which is more than the proportion of 3 per week. We hope the recent Act will have the effect of lessening these accidents in future.

QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

THE rate of mortality for the three months ending 30th September last was 20·1 per 1000, being nearly the same as the average of the last ten years, which was 20·3. It would have been still more favourable, but diarrhœa has been prevalent, and has proved fatal to many children. In the chief towns, with a population of 11,000,000, the death-rate was 22 per 1000; in the small towns and villages, among 9,000,000 people, it did not quite reach 17 per 1000. The proportion of deaths in London and twelve other large towns, varies but very little from time to time, either in its general or its comparative amount. Taken in the aggregate, it was 24 per 1000. In Manchester it was highest, and in Bristol lowest, being respectively 32 and 19 per 1000; in London, 21; Birmingham, 26; Liverpool, 29; Salford, 28; Sheffield, 24; Leeds, 29; Hull, 26; Newcastle-upon-Tyne, 30; Edinburgh, 23; Glasgow, 24; and Dublin 23, while at Salisbury it was not more than 10 per 1000. This favourable result is attributable, unquestionably, to the effective sanitary measures which have been adopted and carried out in that place, and of which the Registrar-General speaks in high terms of praise. The births exceeded the deaths by 81,793

in the quarter, or 889 daily, while the marriages were 6122 fewer than in the corresponding quarter last year, which may be accounted for partly by commercial depression, and partly by the high price of provisions.

FARNHAM WORKHOUSE.

GOADED by the public indignation so ably reflected by the press throughout the country, the Poor-law Board has ordered an official inquiry into the allegations made. Dr. E. Smith will take part in the investigation, and to him the profession will look to see that it is properly conducted The inquiry opens this day. We trust that it will not be held with closed doors, as was the case in a former investigation, but that at the last moment orders will be issued for the representatives of the press to be admitted. Nothing but the fullest publicity can satisfy the public.

THE MEDICAL ACT'S AMENDMENT BILL.

THE Medical Council is about to take action in the matter of the Bill which has been so long in abeyance. It will be borne in mind that after prolonged disregard of the importunities of the Council, Mr. Walpole endeavoured to force upon the Council a clause, under which the power to register any person he might wish, would be conferred on the Home Secretary without the necessity for consulting the Council at all. It is hoped that Mr. Gathorne Hardy will at once see the objections to such a provision, and we learn that the President, Dr. Aquila Smith, has been summoned to meet Dr. Andrew Wood, Dr. Acland, Mr. Paget, and other members of the Council, to form a deputation for the purpose of representing the sense of the Council at head-quarters.

REPORTS, STATISTICAL, SANITARY AND MEDICAL, OF THE BRITISH ARMY, FOR 1865.

THIS large Blue-book contains a mass of varied and valuable information, which were we to attempt, in the briefest possible manner, to epitomize and transfer to our pages, would displace other matter equally desired by our readers. We can, therefore, do no more than give a short summary of its contents, for the convenience of those who have not the time or opportunity of consulting it for themselves.

The first part, the statistical, is on the health of the troops serving in the United Kingdom, and the Colonies. It is chiefly composed of tables showing the number received into the hospitals, from various diseases, and the number of deaths, and also the proportion of each per 1000 of the strength. These tables are very numerous, referring, as they do, to the different stations, to the different regiments, and to other particulars in the varied condition of our soldiery. They are accompanied by observations and notes, which are partially explanatory, and partially exhibit their results.

We might proceed to compare the average rate of sickness and mortality among the men at home and abroad, or that of the different stations with each other, but these particulars, referring, as they do, often to proportions between cavalry, foot, and artillery in some instances, and sometimes to the different divisions of each, would be necessarily dry and profitless. Such individuality, and the consequent information it conveys, is strictly proper, and useful in the highest degree, considering for whom the volume is chiefly intended, but for us it will be proper to confine ourselves strictly to the features of sickness and health among our forces, and the comparative rate of mortality between the year in question, and the five previous ones.

It is satisfactory to know, that the health of our army at home and abroad, as shown by these figures, was in a better condition in 1865, than in any preceding year. Among the troops at home, we find that in a contingent of 72,000 men, the admissions into hospital in that year were 68,661, the deaths amounted to 647, and the average number constantly sick was 3368; the proportion per 1000 being 941 admissions, 8·86 deaths, and 46·14 constantly sick. The average per 1000 of the five preceding years was 1002 admissions, 9·39 deaths, and 52·17 constantly sick. Compared only with the year 1864, the result is more favourable still.

The order of diseases is also tabulated, from which we can only make a selection as regards this country. The rate per 1000 in 1865 of miasmatic diseases was 183·9 admissions, and 1·03 deaths. Enthetic diseases, 282·8 admissions, ·08 deaths. Tubercular, 17·3 admissions, 2·48 deaths. Diseases of the respiratory organs, 88·9 admissions, 1·23 deaths. Integumentary, 134·2 admissions, deaths none. Accidents, 86·7 admitted, ·57 deaths, while in the five previous years the numbers were respectively as follows:—Miasmatic, 211·4 admissions, 1·08 deaths. Enthetic, 331·1 admissions, ·11 deaths. Tubercular, 17·9 admissions, 3·30 deaths. Respiratory, 92·3 admissions, 1·40 deaths. Integumentary, 127·7 admissions, ·07 deaths. Accidents, 83·7 admissions, ·62 deaths. These are the most important diseases specified, and in reference to these we have the following note:—

"Compared with the average of the five preceding years there is a marked reduction in the prevalence of miasmatic and venereal, and in the mortality by tubercular diseases, while there is an increase in the proportion of admissions by diseases of the integumentary, and of deaths by those of the circulatory system."

Exactly the same order is observed in the statistics of the colonies. It will be impossible to go regularly through them, and we shall only, in passing, notice a few particulars of most importance. At the stations in the Mediterranean the admissions and deaths were above the average, which was occasioned by cholera. At Malta, quarantine was established in consequence of the disease prevailing at Alexandria. But, notwithstanding, on the 22nd of June, 1865, the child of an artilleryman was attacked, and died in eight hours. The disease spread, being most prevalent in July and August, when it began to subside, and disappeared in the middle of November. The number of cases among the military was 126, out of which there were 90 deaths, besides those among the women and children. As to the sanitary measures adopted it is remarked, that the results of moving the men out of barracks and encamping them even at a very short distance, fully bare out the experience obtained in other stations of the value of such a measure in arresting the progress of the epidemic.

The lowest proportion of admissions and deaths occurs in British America, though eruptive fevers were much above the average in Canada. In the West Indies both the admissions and the death-rate were high, being respectively 1289 and 20·99 per 1000 in a mean strength of only 1715. The cause may be seen from the following quotation:—

"Intermittent and remittent fevers were very prevalent in the detachment of the 2nd Battalion 3rd Regiment, from the beginning of May till the end of the year. They were attributed by the medical officer in charge to the insanitary condition of the station, aided by the intemperate habits of the men, and to the length of time the detachment, which arrived at Demerara in July, 1864, had been kept in a station abounding in the sources of malaria. The men, in fact, appeared to be saturated with it, and no prophylactic treatment seemed to have any effect in warding off the attacks of fever."

At the Cape of Good Hope also the admissions and deaths have both been considerably above the average occasioned chiefly by venereal and miasmatic disease, while at the Island of Mauritius the admissions have been slightly above, and the deaths considerably below, the proportion of 1864, and in Ceylon both were under the ratio of that year. In the Australian colonies the admissions and deaths have been under the average of the six preceding years, the former chiefly in miasmatic diseases, and in those of the respiratory and integumentary system; and the latter in miasmatic diseases and the casualties of war. China and Japan again present us with the highest rate of any, in proportion to the strength stationed there, the admissions being greatly above, and the deaths rather more than twice the average of the six preceding years. As to China the report says:—

"The great increase in the ratio both of admissions and deaths has been due to paroxysmal fevers, the other groups having been under the previous average. The excessive prevalence of these fevers was in the 2nd Battalions of the 9th and 11th Regiments chiefly from July to November inclusive, and was attributed by the medical officers to the climate of Kowloon, where, at the time, extensive cuttings and excavations were in progress, and large quantities of fresh soil were exposed, to the state of the huts occupied by the troops there; to defective barrack accommodation, aggravated by over-

crowding; to excessive night duty ; and to the withdrawal of the Asiatic troops, which involved an increase to the duties of the European troops, and a much greater amount of exposure to the influence of the heat."

In the whole of India the admissions were lower than the average of the five former years, and the deaths almost the same. The proportions were unequally divided in the several presidencies, and the following quotation may not be out of place as explaining the cause of the difference :—

"Fevers, cholera, dysentry and diarrhœa, and heat apoplexy, were the principal causes of the high rate of mortality, which occurred chiefly at Dum Dum. The exposure of the men on field service to the unhealthy climate of Bhootan, although it did not give rise to a high rate of mortality at the time, was believed by the Medical Officers to have reduced greatly the standard of health, and rendered the men less capable of resisting disease when they returned and were stationed at Dum Dum, and to this, in a great measure, they attribute the heavy loss in the corps. The admissions into hospital and deaths were also very high in the 58th Regiment, at Benares ; intermittent and continued fevers, diarrhœa, and venereal diseases were the predominant causes of admission ; and fevers, cholera, and heat apoplexy, of death.

"*Spasmodic Cholera* prevailed epidemically in all the military divisions. The greatest number of cases and deaths occurred in the Mhow Division, and the smallest in Scinde. Neemuch was the station at which it was most prevalent and fatal ; it broke out there as an epidemic three times in the left wing of 45th Regiment, in May, in September, and again in October, causing 62 admissions and 46 deaths in a strength of about 400 men. Three cases, all fatal, occurred in the Royal Artillery, at the same station. At Nusseerabad, 17 cases and 13 deaths occurred, chiefly in the 106th Regiment, in May and October ; and at Mhow there were 13 cases and 8 deaths in May, June, and July. During the same months, it was epidemic at Poona, where 27 cases and 14 deaths were recorded ; and in May, at Ahmednuggur, it occasioned 37 admissions and 15 deaths. In the Presidency Division it prevailed in an epidemic form in the right wing of the 45th Regiment at Colaba, in March and April, and again in June and July, causing 25 admissions and 12 deaths. In the Northern Division, spasmodic cholera proved remarkably fatal in the B Battery 18th Brigade Royal Artillery, at Baroda, in the month of June, 14 deaths having occurred out of 30 cases in a strength of about 120 men."

Next, the report refers to the health of troops on board ships, and remarks that the mortality by miasmatic diseases among the troops proceeding to India was high, considering that the men were embarked in health. The medical officers at Calcutta were of opinion that it was caused by imperfect ventilation, the generally wet condition of the troop-deck, the decomposing of animal matter in the forehold, insufficient deck accommodation, and, in some instances, the men lying and sleeping in wet clothes.

Then follows an article on the sickness and mortality among soldiers' wives. There are many interesting details connected with this subject which we have not space to introduce. This first part of the report ends with two papers, the one by Dr. Fasson, Surgeon-Major, Royal Artillery, consisting of remarks upon the evidence furnished by the 210 cases of venereal sores admitted into the Herbert General Hospital, Woolwich, from July 1 to December 31st, 1866, and the other on the health of the French army in 1865.

The second part of these reports embraces a wide and important subject—the sanitary condition of our troops throughout the world. It begins with the home quarters of the army, the camp at Aldershot, the different districts, Woolwich garrison, North Britain, and Ireland. The means which have been taken in each of these places to secure the health of the men and prevent disease, as related in these papers, is, on the whole, satisfactory. Sanitary improvements of various kinds have been carried out in ventilating the barracks, attention to the dietary, better means of cooking, better drainage, good water and various other matters which contribute essentially to the well-being of the human subject. All these things have been taken into the account, not only here, but in all the foreign stations. They form a prominent part of the reports from our Indian presidencies. These latter are able documents, well deserving of attention, but which it is impossible to abbreviate, so as to give them a place in our columns, and, at the same time, to do justice to the writers.

Great progress has already been made with a view to promote the health of the men, but with an army so large as ours, so widely separated, and exposed to all the diverse influences arising from temperature, position, and climate, in almost every part of the globe, it will require time, and a large amount of expenditure as well, before the necessary conditions can be secured.

In this part of the book there are a number of special reports which we can only just mention, and leave our readers, if they have the opportunity, to peruse at their leisure. They are exceedingly interesting and instructive, in a sanitary point of view. In the one on Hygiene, by Dr. Parkes, there are topics discussed which are of universal application. He refers in one part, under the head of Special Sanitary Enquiries, to the prevalence of cholera in 1866, and pursues the inquiry, whether the fungoid theory represents the specific cause of that disease. Though he refers to the investigations of several eminent men, which accord perfectly with his own, yet he considers that it is not safe at present to express a decided opinion upon the point.

In all, there are eleven of these papers. They are all interesting, and display marked ability. Each one is worthy of attention, and will repay perusal. We would fain notice them in detail, but "necessity has no law."

The medical report we leave altogether untouched, merely premising that we shall have the opportunity of giving selections from it in our subsequent gleanings, and that we may condense some of the cases for our Hospital Reports.

ABSTRACT REPORT OF AN EXAMINATION OF THE AIR IN THE TUNNELS OF THE METROPOLITAN RAILWAY.

By Drs. Bachhoffner, Letheby, and Whitmore.

We proceeded in the first instance to obtain samples of the air in the tunnels, and we collected them on three separate occasions, namely : First, immediately after the trains had ceased running at night ; secondly, just before they commenced running in the morning ; and, thirdly, in the afternoon between 4 and 5 o'clock, the period of the day when there is generally the largest amount of traffic.

The samples, twenty-eight in number, were taken at different places in each tunnel, and at different altitudes ; some near the crown of the arch, some near the ground, and others on a level with the heads of the passengers. These samples were analysed for sulphurous acid, carbonic acid, carbonic oxide, coal gas, and oxygen.

The presence of sulphurous acid was sought for by the most delicate chemical test with which we are acquainted ; namely, its action upon iodic acid and starch, which we have ascertained is capable of showing the presence of one part by volume of sulphurous acid in 100,000 parts of air, but we could not in any case discover by such test the presence of this acid ; from which we conclude that its volume was less than the above in the tunnels. The proportion of carbonic acid by volume in 10,000 parts of the air in the several tunnels and stations varied from 4·1 to 12·7.

The amounts of carbo-hydrogen (coal gas) and of carbonic oxide present were so small as to be barely discoverable by the most delicate processes of analysis. Lastly, we ascertained that the amount of oxygen in the air of the tunnels and stations was not in any case deficient.

These results prove that in no instance was the air found to be vitiated to any material extent, although it will be seen that the air taken in the afternoon was less pure than that taken at night. The researches of Regnault, Bunsen, and other eminent chemists, and more recently those of Dr. Angus Smith, show that what may be termed "model or normal atmospheric air" in cities and large towns consists in every 10,000 parts by volume of

Oxygen . . .	2096
Nitrogen . . .	7900
Carbonic acid . .	4
	10,000

It is the last constituent, which, when in excess, renders the air impure, and, in proportion to its increase, so is the air made unfit for respiration. Experiments conducted by Dr. Bernays and Dr. Angus Smith have shown that in several of our London theatres at about 10 o'clock p.m., in many other places of public resort, and especially in some of our law courts, the quantity of carbonic acid in the atmosphere of those places varied from 10 to 32 parts per 10,000 ; and from the Army

Report (vol. v. page 272) it appears that in some fairly-ventilated barracks at Aldershot the quantity of carbonic acid at midnight amounted to 6·42 per 10,000 of air, and at 5 p.m. it amounted to 7·59 per 10,000. Even in the streets of Manchester, in foggy weather, it has amounted to 8 parts per 10,000 of air.

In order to determine the atmospheric conditions of these tunnels by comparison with the condition of the air in the tunnels of other lines of railway, we took samples of the air from several tunnels near London; and from these, which we designate by numbers only, we obtained the subjoined results, showing a variation from 4·7 to 12·1 per 10,000 of air by volume.

Our inquiries were next directed to the quality and quantity of the fuel used in the engines, and to the mode by which its combustion is effected. The plan adopted (with which we cordially agree) is to diminish as far as practicable the combustion of the fuel during the passage of the trains through the tunnels and stations.

The coke is of a superior quality, being made from a coal which is known to be more than usually free from iron pyrites, and it is burnt in the ovens for twenty-four hours longer than the ordinary coke generally used upon railways. In addition to which a staff of eight men and a foremen are constantly employed in examining and selecting the coke so as to ensure that none but the best quality of coke is transmitted to London for the use of the Underground Railway.

To determine the per centage of sulphur in the coke, thirteen samples were submitted to chemical analysis, and these gave an average proportion of 0·26 per cent. of sulphur, which is about one-fourth the quantity found in ordinary coke. As regards the coke, therefore, we see nothing to which we can take exception, but, on the contrary, we are of opinion that the best available means are used for obtaining a fuel as free from deleterious matter as possible, in addition to which the combustion of the same is conducted with the view of preventing as far as possible the escape of offensive gases.

The presence of sulphur, or, more correctly speaking, of sulphurous-acid gas, in the tunnels and stations, which at times is appreciable both to taste and smell, more particularly on those days when the external atmosphere is unusually dense, must not be taken as an indication that this gas exists in dangerous quantities, for as little as one part of this gas in 100,000 parts of atmospheric air is strongly perceptible both to taste and smell; and paper moistened with a solution of iodoc acid and starch becomes tinged with a blue colour when exposed for a few minutes to air having the above proportion of sulphurous acid. On several occasions we have exposed this delicate test to the air in the tunnels while passing through them, both in the carriages and on the engines; and, although the quantity of air thus brought into contact with the test has been considerable, yet, it has only been during the time of active traffic that the test has shown the presence of sulphurous acid, and then in an insignificant degree. In addition to the above, we beg to point out another cause which communicates to the air, more particularly in the stations, a pungent smell, which, although disagreeable, cannot in the slightest degree be regarded as injurious to health; we allude to the partial combustion of the wood forming the breaks when acting upon the tires of the wheels in checking the speed of the train as it approaches the stations.

The number of trips made by the trains through the tunnels daily amounts to 358, of which 284 are by the narrow-gauge trains, and 74 by the broad gauge. Each of the narrow-gauge trains occupies 20,000 cubic feet of space, and those of the broad-gauge 23,000 cubic feet. The length of time occupied by each train in passing through the tunnels and stations is ten minutes. There are numerous openings communicating with the external atmosphere above, amounting in the aggregate to 3164 square feet, and distributed in the following manner—namely, Baker-street station, 1362 square feet; Portland-road station, 863 square feet; Gower-street station, 939 square feet. The western end of the tunnel at Edgware-road opens into a large area called the yard, and at the eastern end of the tunnel at King's-cross an opening has been made directly into the atmosphere, 40 feet in width, in addition. By an extensive series of thermometric observations, we find that there is an average difference of about 1·7° Fahrenheit between the temperature of the tunnels and that of the external atmosphere; the mean outside temperature being 70° Fahrenheit, while the air in the tunnels had a mean temperature of 68·3° Fahrenheit, so that it was 1·7° Fahrenheit colder than the external atmosphere. During the winter months this condition will possibly be reversed; but in either case there will be a rapid change of air by an ascending and descending current. Having regard to the cubical volume of the trains, the short time occupied by them in passing through the tunnels and stations, the large volume of air which they displace, and the increased impetus given to the horizontal movement of the air by the rapidity of their transit, we are of opinion that the vitiation of the atmosphere cannot be of a serious character, and this accords with the results of our analysis.

A careful inspection of the tunnels has also shown that they are well constructed, and are generally dry and free from infiltration of liquid or other matter prejudicial to health, with the exception of a portion of the tunnel between Portland-road and Gower-street; to this we directed the attention of Mr. Fenton immediately after our first inspection; and we are happy to be able to add that the defect was at once attended to, and is now in a perfect sanitary condition.

We find on inquiry that the general health of the employés is such as to afford unquestionable proof of the sanitary condition of the air in the tunnels. From a statement furnished to us by Mr. Fenton, it appears that the per centage of sickness and mortality of these persons is considerably less than that of the employés on the Great Western Railway. To this fact we may add the results of our own personal inquiries, which fully confirm it, as many of the engine-drivers and guards have, we find, been in the service of the company since the opening of the line. They are to all external appearance robust healthy men, and they have assured us that since they were first appointed they have scarcely had a day's illness.

From the foregoing facts, we are enabled confidently to state that the atmosphere of the Metropolitan Railway is not unwholesome or injurious to health.

Introductory Addresses.

THE MEATH HOSPITAL.

ABSTRACT OF INTRODUCTORY ADDRESS.

By M. H. COLLIS, M.D., F.R.C.S.I.,

SURGEON TO THE HOSPITAL.

In the course of his observations, Mr. Collis said—Hospitals may be looked upon in a threefold light, as institutions for the benefit of the poor; secondly, of the rich; and, thirdly, of the medical profession. In their first aspect they are simply charitable institutions, a means of carrying out in one of the most effective ways the divine commands of Him who has told us that the poor should be ever with us. Hospitals are manifestly established for the rich, because they are thus relieved from all active or personal concern in the ailments or accidents of their dependants, whether tenants or servants. A much more important and cogent reason remains to be considered. If there were no hospitals wherein the student could follow the practice and learn the art of the surgeon, no wards wherein he could study the varying phases of disease in life, under the guidance of the physician, no dead room wherein to search out the changes wrought by it on the material frame, no lecture-room wherein the teacher could sum in clear, yet concise detail the lessons thus variously gathered, may be, in undiscriminating profusion, or it may be by more scanty gleanings, what, let me ask, would be the condition of the man of wealth when sickness or accident befel him—where was he to look for the mechanical skill, the educated touch, or, still more, the cultivated mental power, which, one and all, are necessary for the efficient practice of the healing art? The State accordingly looks upon hospitals not as places where the skill of the practitioner may be perfected, but simply as schools where those who have attained a certain amount of skill and knowledge may impart what they can of that skill and knowledge, or at least aid and superintend their juniors, in their search for the same. With this view the State, which does not much concern itself with charity as a divine precept, has supported hospitals to a certain limited extent. It is mainly to the celebrity of this hospital as a school of medicine that it is indebted for the, by no means large, amount of public money which it has hitherto received. Charity and the self-interest of the wealthy classes have never yet founded an hospital without this third element—namely, the impetus which hospitals give to medical progress. That the possession of a post in an hospital is of essen-

tial service to the worldly prospects and success of those who hold office in it is plain, and this spring of our interest in hospitals is not to be denied. Yet it is the moral power which the office gives us which makes us love it, and cling to it long after all interested motives cease to sway us. We see men who have reached the highest eminence and the largest meed of worldly success, give much of their most valuable time, the freshness of their mornings, to hospital duties. Why? Like all true men, they love success, and the influence and moral power which is born of success. In the wards of the hospital they reign supreme. Of the various hospitals in Dublin the following were directly set going by the exertions or benevolence of medical men:—The hospital now known as Jervis-street Hospital, Steevens' Hospital, the Lying-in Hospital, the Lock Hospital, St. Nicholas Hospital, which, after many changes, has merged into St. Mark's, Sir Patrick Dun's Hospital, and the Meath. Others there are, no doubt, but there is documentary evidence easily obtainable to show that all these hospitals were started into being by the exertion of medical men. The history of the indomitable energy and personal sufferings of Dr. Bartholomew Mosse, who built the magnificent Lying-in Hospital in Britain-street, has been written by one whose pen is well able to do justice to the theme. In the first volume of the *Dublin Quarterly Journal*, year 1846, Sir William Wilde gives a graphic account of Mosse's struggles in this cause. The narrative reads like a romance, and will well repay perusal. But I must leave to others the details of other hospitals, and confine myself to the history of our own, so far as I can gather it from not very perfect documents. In the *Gentleman and Citizen's Almanack*, by John Watson, bookseller, for the year of our Lord 1754, and 27th of Geo. II., page 72, is found the following first notice of the Meath Hospital:—"The Meath Hospital on the Coombe was opened 2nd March, 1758. Supported hitherto by a benefit play, some benefactions, and annual subscriptions of several of the principal inhabitants of the Earl of Meath's Liberty, and other well-disposed persons, who judged that an institution of this nature was much wanted in a part of the town remote from the city hospitals and greatly thronged with the industrious poor. That it really was so has plainly appeared from the great numbers who daily reap the benefit. The number of out-patients to 29th September, 1753, was 4095, and twelve interns have been maintained, cured, and discharged. Messrs. Alexander Cunningham, Redmond Boat, David Macbride, and Henry Hawkshaw, surgeons, attend daily in their turns, and all serve without fee or reward. Benefactions will be received by Mr. George Thwaites, at Cork-bridge, and Mr. Joseph Terry, in Braithwait-street." The hospitals which were then in existence appear to have been Dr. Steevens' Hospital, Mercer's (in Stephen-street); the Charitable Infirmary on Inns-quay (now Jervis-street Hospital); the lying-in Hospital, in George's-lane (the precursor of the Rotundo Hospital), and St. Nicholas Hospital in Francis-street. A document prepared and presented to the Irish House of Commons by the Governors of the Meath Hospital in 1773 supplements this somewhat meagre sketch of our origin. From it we gather that the surgeons and physicians had not only been at a considerable private expense, but also that they had with infinite industry and application been the principal agents in raising the hospital buildings. The records of the hospital, scanty as they are for the first twenty years, lead to the conclusion that all deficiencies were guaranteed and made up by the medical men. The petition or memorial of 1773 further states, that from the first the surgeons and physicians had served without fee or reward; and on the hospital being placed on a somewhat permanent footing, by being constituted the County Dublin Infirmary, they deliberately gave up £100 per annum, Treasury grant, and their proportion of the county presentment, to the hospital funds. The hospital still receives this £200 per annum, the salary of the medical officers. So far as the poor are concerned the services of the physicians and surgeons in the hospital are gratuitous, and so far as the rich are concerned they are their unpaid fellow-labourers in this charitable institution. They are, no doubt, paid by their pupils for their instructions; but it is right that the public should comprehend how it stands towards them, and how they both stand towards this and kindred institutions. From want of thought on the matter much misconception exists, and hospitals are sometimes spoken of as if they existed solely for the pecuniary benefit of medical men. It is not so. A physician or surgeon needs but a few beds to show himself a successful teacher, a brilliant operator. Scarpa had but six beds in his hospital, yet what an everlasting fame he has built for himself. A small hospital will do for the medical man, but a large one is needed for the necessities of the poor and the benefit of the rich. That in former times both classes co-operated is seen in our records. The first entry in our oldest minute-book is dated February 28, 1766. On its first page we find as members of the committee the honoured names of Guinness, Vance, and Pim. Representatives of these names are still the stanchest friends of the institution, and long may they so continue. The ways adopted at this time to raise funds consisted in dividing the neighbourhood of the hospital into wards, and appointing a number of gentlemen in each ward to take in subscriptions. There was also an annual benefit play, and a dinner. Lotteries were at this time usually employed to raise money for public purposes. Thus the Guild of Merchants had their scheme to raise money to build the Exchange, and in this and such like schemes a certain sum varying from £100 to £300 was generally set aside for the favourite hospital or charity of the day. In this way the Meath Hospital received several contributions. The present representatives of the corporate interests of our city, who hold their meetings in the building referred to, now known as the City Hall, have within the last week recognised the value of the Meath Hospital to the citizens by presenting for it a sum of £300. To these worthy successors of those who, when building the walls of the old Exchange, did not forget to aid the charity, our warmest thanks are due. We on our side can join in the statement made over one hundred years ago to their predecessors, that this institution is free from all unworthy taint of sectarianism, that all creeds are respected within its walls, and that none are allowed to lord it over the other on the score of religion. In 1769 the governors of the hospital, which had been moved a few years before into Skinner's-alley, and then into Earl-street, determined, in consequence of its ruinous condition and unsuitable character, to build a new hospital. Consequently, exertions were made to raise money; a piece of ground was bought upon the Combe, and, after various delays, on October 10th, 1770, Lord Brabazon, ancestor of the present Earl of Meath, laid the first stone of what was the old Meath Hospital on the Coombe, and what is now the Coombe Lying-in Hospital. The cost of this building was defrayed in part by a lottery prize of £1000, and in part by a legacy bequeathed by Mrs. Lockwood, amounting to £660. This legacy was the cause of a prolonged dispute with the Hospital of St. Nicholas, who claimed it in virtue of their usurpation of the title of the United Hospitals of St. Catherine and St. Nicholas—the legacy of £1000 being left in the proportion of three-fourths to the former and one-fourth to the latter. After much correspondence and threatened litigation the matter was decided by a committee of the Irish House of Lords in favour of the right of the Meath Hospital to the three-fourths bequeathed to St. Catherine's Hospital, there being no institution of the latter name in existence at the date of the will, and the Meath Hospital being in St. Catherine's parish. After some further delay the money was paid to the Meath, but the Hospital of St. Nicholas kept hold of the usurped name of St. Catherine. One result of the dispute was to draw the attention of Parliament to the hospital and its superior claims, and in same year (1774) it was by Act of Parliament constituted the County of Dublin Infirmary. This new hospital now began to acquire celebrity as a school of surgery and medicine. The names of many of its physicians and surgeons would now be known only to the medical antiquary. The life of one of the first surgeons of the hospital, David M'Bride, has been written by Sir William Wilde, and will be found in the third volume of "The Dublin Quarterly Journal." In this memoir there is much interesting matter, but the fact of his connection with the Meath Hospital is not noticed. This is scarcely a matter of surprise, as he seems soon to have left it, and to have devoted his talents to the practice of midwifery, in which he became so celebrated as to get the attendance on numbers of titled ladies. Among others it is stated, but not corroborated, that he attended the Countess of Mornington on the occasion of the birth of Arthur Wellesley, Duke of Wellington. Among other surgeons in this period we find Solomon Richards, father of the Baron. For a period of twenty-nine years, beginning from 1790, his portly form was almost daily seen in the Old Meath, where he reigned supreme. I have in my possession a lithotomy case which belonged to him, and which contrasts somewhat strongly with the more polished products of the present instrument. Mr. Richards was succeeded by W. H. Porter, whose loss to this hospital and to surgery I had to deplore on the last occasion upon which I opened the Meath Hospital winter ses-

sion. Contemporary with Richards, for a short period, was William Dease, one of the best surgeons in the eighteenth century. He was noted as a great lithotomist, and in a rare tract, referred to by Sir Wm. Wilde, he set forth the various modes of lithotomy, giving preference to that of Daunt, now known as Peile's method, the last-named surgeon having brought it to what perfection it was capable of. Wm. Dease at his death was succeeded by Philip Crampton, who commenced his apprenticeship to Solomon Richards, on the 8th November, 1792, and was elected surgeon unanimously on the 28th September, 1798, being thus less than one year out of his time, and not being in the possession of any other qualification than that of army assistant. His career as surgeon to the Meath Hospital lasted but a few months less than sixty years. What changes did he see in the practice of surgery? What an epitome of progress could be formed from an accurate record of his experiences. How largely did he contribute by his own labours to benefit mankind—a great man, who to the last enjoyed unusual vigour of intellect; how he ripened and mellowed as years added to his store of experience is still in the memory of many. The weighty wisdom of his words, few and forcible, caused him to be listened to as an oracle; and justly so, for the unclouded intellect of an aged philosopher must, of necessity, increase in value as year after year it becomes more perfect by practice and more richly stored by experience. Crampton's great *forte* lay in acute observation and rapid power of combination. In the old hospital, besides those I have named, Dr. Evory taught for eight years before he became master of the Lying-in Hospital. To him succeeded Bell, and then Francis Barker, who for half a century afterwards was famous as a lecturer and professor of chemistry. The names of Egan and Todderick are now less known than their successor Cheyne, who laid the first foundations of the modern method of teaching in the Meath before he migrated to the House of Industry Hospital in 1817. To him, in the next year, succeeded Whitley Stokes, the first of an illustrious trio, who, I doubt not, will make that name as renowned in the records of the Irish school as the three Monroes have done for the Scotch. And now in rapid succession, in one year, 1819, come the names of Macnamara and Porter—names honoured among us, not only for the merits of those who held them, but at least as much for their present representatives. The last name associated with the old Meath is one which can never be mentioned without the profoundest feelings of respect and gratitude by any one who comprehends in the faintest degree the true method of clinical study. In the year 1821, Robert James Graves was appointed physician to the Meath Hospital. This remarkable man left an impress on medical education that time will not efface. He first raised the pupil from the position of an inferior, who was simply permitted to look on and scarcely to listen, to be the fellow-worker of the physician, to join with him in daily observation and record the phenomena of disease, and to share in the responsibility of the daily treatment. He first in this hospital perfected the system of clinical instruction, which is still successfully pursued, and of which, if the student avail himself, he becomes by degrees a skilled and scientific practitioner. The great importance of clinical lectures, and the high esteem in which they are held, may be judged by the fact that, whereas before they were commenced the class of pupils in this hospital averaged only ten, they had been carried on for very few years until the class reached the number of seventy. No theme would please me better than to continue this sketch, and to give from this place the panegyric of others—my own early teachers—who have passed away. But time will not permit, and what remains of my special subject must be briefly concluded. Towards the close of the second decade of this century the Governor of the old Meath found that the building on the Coombe was confined in accommodation, and incapable of extension on any reasonable terms. Encouraged by a timely gift of £6000 from Thomas Pleasants, obtained by Mr. Richards and Mr. Peile, they set about the building of this present hospital in which we are assembled. The Dean's Vineyard, containing two acres, was purchased for £1120, free of rent. £4000 of Pleasants' money was available, and was expended on the walls of the central building; the remaining £2000 was funded by his direction to procure wine and other necessaries for cases that required it. To complete the building £4788 was granted by the county in 1820. This house was opened for the reception of patients on the 26th December, 1822. I have often heard the late Professor Porter and my uncle, Maurice Collis, relate how they superintended the removal of the patients from the old hospital to the new, carrying them wrapped in blankets in baskets made for the purpose. During the process of removal, which occupied some hours, a furious storm arose, and on the return journeys they were glad to protect their own heads from the flying slates with the empty baskets. On the 5th November, in the year 1826, owing to a severe epidemic of fever, sheds had to be erected in the grounds of the hospital, and a large subsidy was granted by Government for the cost of maintenance of the fever patients. On the subsidence of the epidemic it was rightly judged by the medical board, that it would be prudent to set apart special wards for the immediate reception of fever patients at all times, that epidemics might thus be checked in their outset, and much loss of life in all classes of the community prevented. This was represented to Government, I believe, by the Surgeon-General and the physicians, Drs. Graves and Stokes, and it resulted in our obtaining an annual grant for this purpose. This grant, which dates from the 5th November, 1827, used to vary according to the amount of fever, but has of late years been commuted into a fixed sum of £600 a-year. This sum was secured to us after a long inquiry, mainly on the ground that these fever wards make our hospital more complete as an educational establishment for the training of medical men for the various public services at home and abroad. Additions have been made to this establishment from time to time, either at the sole expense of the medical board, as in the case of the dispensary buildings, or, to a great measure, as in the case of this operating theatre. This latter was built in part from a legacy obtained by the late Professor Macnamara from a gentleman who entrusted him with a fund for purposes of charity, and in part by a contribution of £400 from the members of the medical board. Other additions have been made in honour of our departed colleagues, such as the Collis Recovery Wards and the Smyly Ward for children—ways of honouring the dead of our profession which commend themselves to the common sense of mankind as more suitable to the individuals than statues of marble or of bronze. All these additional wards, together with the endowments in memory of Surgeons Porter and Rynd, the Sandford bed, the beds endowed by the Society of Friends, &c., are subject to the same impartial rules, with respect to religious toleration, as the rest of the hospital. The Standing Committee will accept with thanks any similar endowments from whatever quarter they may come, on the condition that their rules, which secure freedom to all, with offence to none are not departed from. Among the not very numerous bequests which have been made to this hospital I may mention one by the Right Hon. James Grattan, of nearly £5000, the interest of which we receive from his executors. In memory of this benefaction we have called the square ward upstairs "The Grattan Ward." And so this hospital has grown up to its present state by successive stages of development and growth, due now to the combined energy and benevolence of its lay and medical governors, now to the princely munificence of those who, possessed of wealth, knew how to give their thousands with a liberal hand, and now to the tender regard of friends and relatives to departed worth. As a building it is efficient, but by no means incapable of improvement. As a public charity it admits, nay, loudly calls for extension, for its walls are not large enough, its wards not capacious enough to contain one-half that claim admission within them. Did time permit, I should claim your attention to the vast advances of medicine and surgery in the long period which has elapsed since the first small beginnings of this hospital. Let me briefly mention three of the more prominent which have occurred in my own remembrance in the domain of surgery. First, in order of time, is that glory of the Irish school, the treatment of aneurism by compression; second, the gradual introduction, by French surgeons of lithotrity, as a recognised practice. Sir Philip Crampton largely contributed to the introduction and stability of this improvement. Thirdly, the discovery and practice of urano-plasty, or closure of clefts in the hard palate, by a distinguished American surgeon, of whom death has this year deprived us—Dr. Mason Warren, of Boston. These improvements occurred while I was yet a pupil. The year 1847 was signalised by the discovery of anæsthesia. The first painless operation was performed in the town of Hertford, Connecticut, by a dentist of the name of Wells. He had the barren honour of introducing anæsthesia. His discovery was improved by Morton, of Boston, who substituted sulphuric ether for the nitrous oxide gas, which Wells had used, and finally, Sir James Simpson introduced chloroform, which in this country has held the lead, and has gained for the worthy baronet a European renown. The impetus given to surgery by anæsthesia has been immense. Year after year new and difficult operations have

been achieved, such as before choloroform was unthought of. It would be impossible to enumerate them all, for scarcely a day passes without fresh additions to our resources in this respect. Contemporaneous with this advance in the mechanical part of our art has seen a great growth in pathological knowledge. The researches of Rokitansky and Lebert, of Hanover and Thiersch, of Paget, Virchow, and many others, have placed in a new and clearer light the results of morbid action on various tissues of the body. The great improvement in mechanical appliances for all purposes connected with the study and practice of our art is but a part of the age when "individual men are less, and usages, opinions, laws, and material appliances of every kind play a more important part than of old. Students in the present day thus enjoy facilities which were denied to us in our student days. The microscope, with its binocular arrangement; the laryngoscope, the ophthalmoscope, the endoscope, all help to enlarge their field of view, and to aid them to acquire at once an amount of knowledge which, even in our early days, was impossible with prolonged labours. And now to what practical end does all this retrospect point the way? For what purpose have I to-day recapitulated the history of the Meath Hospital and County Dublin Infirmary, and why have I coupled with it remarks upon the changes which I have witnessed since first, as a pupil, I sat where you now sit? What is the value of research into the records and reminiscences of the past? Surely it is this—that by study of what has been done we too may learn to do. There are men in every generation who are perfect mines of facts, walking encyclopedias, reservoirs (I had almost said butts), whom you have only to tap and obtain a copious stream of mere knowledge—sometimes clear, sometimes muddy—men of great service to others whose memories are less tenacious, and who are yet unable to draw from all their stores one sound conclusion for themselves. Be careful, then, not only to accumulate facts but to select and test them by comparison, so as to have the best material. Compare your own observations, rough at first, with the more accurate results of more experienced labourers, and be not in haste to build. The comparison of observations tests their accuracy; if one man has but once seen an unusual phenomenon, its value is but small, for the observation may have been inaccurate; if he have met with it more than once, and still more, if another confirm his statement, there is strong ground for accepting it. And let not the weakest and least cultivated student despair of attaining this, the highest eminence—not wealth, not earthly fame. the gifts capricious of uncertain fortune; but this, the God-like power of so applying the principles of his art that sickness may be relieved, life prolonged, and sorrow ever mitigated by his healing presence. These glorious powers have been possessed in the highest degree by men in the humblest walks of our profession—men who have had to fight the hardest battles for a bare subsistence, whose days have been weariness and pain, whose nights have been spent in watching, and who never had the leisure to impart to their fellow-practitioner, even if they had the power to do so, the thousandth part of the insight into nature that they thus laboriously acquired. Those who have loved to talk with these village Hampdens know well their worth, and hold them in the highest esteem. Whether, then, you seek to follow your profession at home or abroad, in the busy haunts of man or in the comparative retirement of the country, remember that to fill it as you ought to fill it, the same diligence, the same cultivation, and the same rectitude of purpose should be yours; and fret not yourselves if, in this world, an equal reward to others be not given you. The time is short. Love your profession, and work will be your happiness, success in work your reward. The time is short; work while it is day, for a night will come when work will give place to rest, and, after that, the dawn of a perfect day.

CARMICHAEL SCHOOL OF MEDICINE.

INTRODUCTORY ADDRESS.

By **ANTHONY H. CORLEY, M.D., F.R.C.S.I.,**
LECTURER ON SURGICAL ANATOMY, AND SECRETARY TO THE SCHOOL.

GENTLEMEN,—In accordance with a custom that is at least time-honoured, I stand before you to deliver the lecture introductory to the general work of the session. I have to thank my colleagues for the honour they have conferred in selecting me to discharge this duty; and while I have to express my sincere conviction of my inability to follow worthily in the footsteps of the great men who have preceded me in the task, yet, in earnest desire to make my observations advance the interests of the institution which they founded, and the noble profession which they adorned, I shall yield to none. In striving to lay before you some important points connected with your progress and welfare, I may have to depart somewhat from the ordinary routine; but I trust I shall not do so without good and sufficient reason. It is usual, in addresses of this kind, to paint for the student, in glowing colours, the course which he has before him, to show him how to pursue, and how he will be assisted in, his studies; and how, eventually, by following the guidance of those placed in authority over him, he will reach a position securing independence and commanding respect.

It may be fairly thought an ungracious, as it is an unwelcome course, to deviate from this method of proceeding; but as the duty of marking the rocks and quicksands precedes the successful voyage, so, I think, as a warning, it may not be inexpedient for one lecture, at least, to touch on some of the darker shades of the picture.

The medical profession has never shown so many signs of vitality, and, at the same time, its shortcomings have never made themselves more keenly felt than at the present day. When suggestions as to its improvement meet the reader of every medical journal; when the General Medical Council is demanding from parliament enlarged powers to deal with offending individuals and recalcitrant licensing bodies; when candidates with two qualifications are frequently declared unfit to take medical charge of her Majesty's forces by land or sea; when, consequent on some of these defects, homœopathy and other less innocent forms of quackery are rampant; when the insufficient remuneration of medical men in the public service is a constant source of complaint—a brief consideration of some of the causes which lead to such unsatisfactory states of things—how the men who are now pressing forward into the ranks of the profession will be affected by them, and some suggestions as to how they and others can assist in bring their calling to a condition something nearer to perfection, will not, I trust, be an unprofitable way of spending the time I am addressing you. It may, at first sight, seem presumptuous in a comparatively young man to attempt what many of the Nestors of medicine have scarcely succeeded in doing; but, in some measure, that apparent disqualification may give me additional claims to be heard; for, while my six years' companionship with the teachers has given me a reasonable opportunity of becoming familiar with their difficulties, I am yet sufficiently fresh from the ranks of the students to understand, to sympathise with them, and to know their requirements.

For the condition of affairs which I have mentioned I believe that the public in a minor, and the profession in a greater, degree are responsible. Assuming that the practice of the healing art is absolute necessity (and all the numerous ills that flesh is heir to, allow that assumption but too readily), there must exist a kind of implied compact between the public and the profession; to provide properly qualified physicians and surgeons, who are competent to take charge of the afflicted, on the one hand, and to make the hire worthy of the labourer, on the other. A failure to comply with these conditions on one side, will engender a corresponding neglect on the other. But as the first obligation lies on the side of the profession, so, I submit, that in case of any fault of theirs leading to a condition mutually unsatisfactory, they are morally responsible in the greater degree.

Let us examine how far each party to the compact endeavours to fulfil the obligations which it imposes. To send forth qualified practitioners there are in the United Kingdom nineteen licensing corporations owning the allegiance of some three and thirty medical schools, and a much larger number of hospitals. Surely it will be said, "here is an array sufficient to satisfy the requirements of any community. The existence of so many different bodies qualified to grant a licence, must lead to a healthy competition, and all are engaged in a generous rivalry to raise the standard of professional education." Unfortunately, it is not so. These various universities and colleges differ in their age, their wealth, and the estimation in which they are held. Now, what are their functions? They are to test the fitness of candidates to have the lives of their fellow-creatures intrusted into their hands, and as clinical study, physiology, pathology, and all the ancillary branches of medical science, demonstrate the methods of diagnosis and treatment of disease, the advantage of new, and the dangers of old ones, so should the candidate be held back from his life-long com-

bat with his enemy, till his weapons are tempered and his armour is, as far as possible, perfect. Is this always done? I rejoice to say that most of the bodies I have spoken of, and especially those of our own country, are mindful of the sacredness of their duties. Others are improving, principally, I believe, through the exertions of the General Medical Council, and the publicity given in its debates to their defects. But, gentlemen, there are some which show but few signs of real amendment, and, as the strength of a chain depends on that of its weakest links, the whole profession suffers from the shortcomings of two or three colleges. How these act may be thus explained:—A student is rejected, after due examination, by some one of these institutions, or is from any cause afraid to present himself for examination. This *should* be a warning to him to return to his studies, and, after some months, again present himself to his examiners better prepared. Instead of this he takes a return ticket to a neighbouring country; and he, that man whom, perhaps, a court of examiners had solemnly pronounced unfit to practice, comes back with his diplomas in his pocket, and settles down to complete his medical education at the risk of his earlier patients. Month after month we see, leaving this country, students who have neglected their opportunities, and who seek the less creditable, because more easily obtained, qualifications I have alluded to, and, unfortunately, their legal value is quite equal to the highest. As long as there exists the present inequality in the nature of examinations; and as long as there are examinations, which the experience of every private teacher tells him a man of average capacity can be worked up for in six months—so long will a condition result which offers a premium for idleness and neglect of opportunities on the part of medical students; and so long will there be found in our profession a class of men who in every way lower it in public estimation. The medical schools and teachers can do little to remedy this evil. There are not yet sufficient means to prevent thoughtless students from mispending their time. As matters are managed at present, there is no profession in which there are more fatal facilities for idleness than the medical. A young man begins by passing an examination to test his general education, and this is, in most cases, utterly insufficient for the purpose. He then attends, for a certain period, courses of lectures and hospital practice, but there are no means applied of ascertaining or insuring, from time to time, that he remembers anything of the one, or has observed anything of the other. At the end of the prescribed time, a few hours are considered sufficient to test if he be a fit and proper person to practice. Now, the student who does not make the most of his opportunities, generally knows that at the worst he can be "crammed" for a few months with information as evanescent as it is rapidly acquired, but which he retains long enough to enable him to receive a diploma of some kind, trusting that the public will not be able to distinguish between the morally worthless and the valuable qualification. I believe that next to the want of uniformity in the examinations, that is—one college, from unworthy motives, lowering its standard of education—the want of regulation of studies is the most fertile source of the unsatisfactory condition I have dwelt on. Many students not being coerced by judicious regulation, or stimulated by rewards for high qualifications, content themselves with, as it were, strolling through their pupilage, losing their opportunities and wasting their time. This brings into our ranks a number of men, who, from the work they have done, or from the knowledge they have acquired, can never hope to occupy any other than the lowest step on the social ladder. If the evil ceased here, there would not be so much cause for general complaint; but those very men, who, with proper training, might be the ornaments and support of their profession, prove, in a two-fold manner, its greatest weakness. In the first place, the public can often discriminate the shortcoming of a practitioner, without being reasonable enough to reflect that he is not a type of the whole body; and, secondly, they lower the rates of payment offered by Boards of Guardians and other public bodies, who have the apportioning of medical salaries; and allowing themselves to be misled into paying insufficiently is the principal fault with which the public can be charged. Surely it must be a matter of astonishment to every one to think of the miserable remuneration, which in many, if not the majority of cases, is offered to the unfortunate dispensary doctor, where the maximum salary is £120 yearly, and the minimum £60. There may be little or no private practice in the neighbourhood, and the district may be such that out of the munificent sum I have named, he must keep a horse, and in some places on the coast, as I have been informed, a boat also. If a remonstrance be addressed to guardians on this subject, the reply is, that the position cannot be so bad, as for every vacancy there are ten or fifteen candidates. This is an almost unanswerable argument. It is very hard to persuade gentlemen who may be earnestly and honestly endeavouring to discharge their duties as "guardians of the poor," and, at the same time trying to keep down the poor-rates and please their constituents, that the truest economy may be in selecting the best qualified man, and paying him well. The prophylactic measures adopted by a highly trained physician, who understands as much as is known of epidemic or endemic influences, and the hygienic conditions that tend to their prevention, would do more to economize truly by *checking* disease at its onset than all the drugs which the routine practitioner could perfunctorily administer for its *cure*. Recollect I speak in a portion of a kingdom whose mortality returns show that one-half the deaths occur from preventible causes. And, regarded from the proper point of view, there is no more responsible situation than that of a dispensary doctor. The most difficult case, one about which there would be a consultation in an hospital, he may have to decide on with his own unaided judgment. Is it any wonder that the flower of the junior members of the profession seek abroad, or in the government service, that respectable livelihood which an unworthy competition, and a mistaken economy, prevent them from enjoying at home? Having gone as fully as time will permit me into the causes which I conceive produce such dissatisfaction, I must endeavour to suggest a remedy. I believe that the correction lies altogether in the hands of the profession. Let every student resolve that he will qualify himself for a high, and be content with no other position. See that no inferior practitioner be allowed to enter, and then the well-informed will always command his value. I remember the deserved rebuke which was administered by one distinguished member of the General Medical Council, when, in a discussion on this very point, another suggested that there should be different classes of surgeons, etc., and that those communities which could not afford the better should be contented with the lowest. It seems to me that when a doctor is paid for attending those whom poverty, or other causes, prevent from having any voice in his election, it is the paramount duty of those who have the power, to select the man best qualified.

It will be seen that my first suggestion is the equalization of all examinations, or, at least fixing a *minimum* one of a sufficiently searching character. Whether this can be effected by having one central board of examiners, or by appointing paid visitors to superintend the present examinations, and be responsible to a central directory, is immaterial; once grant the necessity, and the accomplishment is only a matter of detail. Let the reform commence with the preliminary examination. On this point I do not refer to the universities, which make that trial merely a portal to a more complete system of education. I speak of those cases in which a single examination is the only test of a man's general knowledge. On this subject there is already a difference of opinion as to whether or not the Greek language ought to be required. Dr. Acland, who represents the University of Oxford in the General Medical Council, mentioned that, with reference to this, he wrote for the opinions of some of the first classical scholars in England, and they were unanimous for its omission, on the ground that to seek for a thorough examination with such a difficult language, would exclude numbers of able men from the profession, and looking for a mere nominal acquaintance with it would lower the character of the examination. I should be inclined to recommend a compromise. Place it in the curriculum and examine thoroughly into it, but let students have an option of substituting some other subject for it, say an additional *modern* language, or a more extensive course of literature and history, especially their own, or a wider range of mathematics. These last I should look on as of much greater importance, for I have known men able to pass a respectable examination in classics, and yet ignorant of even the most striking names and events in the history of their own country. In any case let the examination be such that the pupil may understand from the very outset, that becoming a medical student is not another name for doing nothing.

The next point of importance is to provide some means of insuring that time and opportunities are not wasted, and that the work belonging to each term is done in each term. Lest the pupils should imagine that I am using harsh language, or giving an unfavourable impression of them, and that all may understand something about those for whom I am proposing

regulations, I shall give a short sketch of medical students, as I know them. Let me premise by stating my honest conviction that, as a body, there is no other class in the community with whom they may not fairly compare, and certainly there is none that, in the acquisition of its necessary information, is the means of doing so much good. I have frequently heard one of my most respected teachers describe the pupils around him as consisting of an inner and an outer circle, or those that work and those that do not work. If we further sub-divide each of these into two classes, I think we might arrive at a correct idea of all. Of the inner circle, the first class comprises the men who work under all circumstances. There are no regulations needed for those. All teachers know them—the Brodie's and Carmichael's of student life. In the second class, which, I am happy to say, forms the great majority of pupils, are those who will work if they are shown the way. I am of opinion that, with respect to the improvement of these, legislation should be directed more for the teachers than the taught. Let there be proper supervision and guidance, and means of ascertaining that these are used to the greatest advantage. I feel some delicacy in approaching those in the outer circle, but I shall speak of them as I know them. Class No. 3 is composed of the men who can and will work, but not till they are obliged. With proper regulation wonders can be done with these. Some of them are the Swifts and Goldsmiths of medicine. At present they avail themselves to the utmost of those unfortunate facilities for idleness, of which I have spoken, and knowing that six months "cramming" will make up, in one sense at least, for all, they delay until necessity, in shape of angry parents, or diminishing funds, warns them that no further time is to be lost; or a more creditable motive, shame at being distanced by so many of their juniors, urges them to apply themselves vigorously to the difficult feat of regaining lost ground. If they fail to take warning they pass into the fourth class, which includes the students who never work under any circumstances. This has, in addition, all those who have neither ability nor industry, and is a remarkably small class, whose numbers can be counted by units. The objects of medical legislation should be to devise regulations, which would utilize the energy and genius of the first, direct and assist the second, judiciously coerce the third, and prevent the formation of, or exclude altogether, the fourth.

Next to equalising the various examinations and *curricula*, the best means of effecting the foregoing objects would be the instituting of sessional examinations, and under no circumstances allowing the second term to be entered on until the first examination is passed. With regard to the subjects for these examinations, of course the earlier ones should be very limited in number and extent, embracing a reasonable amount of anatomy, histology, the elements of chemistry, materia medica, and botany, if that be considered necessary; also, some of the fundamental principles of surgery and medicine—such as, for instance, the method of repair and treatment of wounds in the former, and knowledge of the various methods of investigating the condition of the internal organs in the latter. Some of the colleges have advanced a step in the direction I have indicated, by dividing their final examination into two parts. But, in my opinion, they have lost all the advantages of this by allowing the first part to be postponed and passed with the second, and also by omitting some of the subjects, as, for example, anatomy and physiology, from the last. Now, I have no hesitation in saying this is a fatal error. My experience as a teacher has led me to this belief—*that every subject, the knowledge of which will be required for future practice, should form a part of every successive examination*. I shall offer some reasons for this. Anatomy is a subject full of minor difficulties and technicalities, and not readily learned, but one which, when once thoroughly mastered, a very little daily work suffices to keep up the knowledge of. But as the student does not always fully understand the necessity of remembering it for the future, and as its study is associated in his mind with much repulsive drudgery, as soon as the immediate want of it, or, in other words, the examination in which it was required is over, he absolutely makes haste to forget it—so that, unless with some object in view, such as passing the army board examination, few young surgeons care to burden their memories with what is to them an uninteresting subject. Never let the student think he is done with it, but retain it in all examinations. I believe that the very *idea* of having to be examined in it again will assist in preserving the recollection of it, even though he may not read it. Let that stimulus be removed, and, in many cases, it would almost seem as if he took a pleasure in forgetting.

Having said so much of the sessional examinations, we come to the final one. The minimum which may be fixed on should be a comprehensive one, and practical to the highest degree. Part of the examination in anatomy should be on the subject, not merely on dissected specimens, but the candidates should also be called on to make dissections themselves, the true criterion of knowledge. The physiology should include histology and microscopy, and their knowledge of medicine and surgery should be tested by the only real method—that of bedside examination, for diagnosis and treatment, and operations performed on the subject.

It may be objected that this system would involve changes too sweeping; would give too much trouble, and otherwise be impracticable. In answer to these I may point to the examination of the London University and the Army Board, where a system such as I have recommended is carried out, and surely the lives of the general public are just as valuable as those of Her Majesty's forces. But it *has* been found practicable, and easily so, even in this private institution, the Carmichael School. One of our lecturers, deeply impressed with the merits of examinations such as I have advocated, has long been in the habit of bestowing a gold medal annually, for the successful competitor, in a similar trial, and through the courtesy of the medical officers of the adjacent hospitals, there was never any difficulty in conducting the examination. There has always been keen competition for it, and how much more eager would the struggle have been, how much more attentive and observant would the hospital class be, if each man understood that future eminence as well as success at his final examination (that more immediate and tangible inducement) depended mainly on his work in the hospital ward, and the use of his own scalpel and forceps in the dissecting-room. Sharing these sentiments, the other proprietors of the Carmichael School, in deciding as to the nature of the examination for which the Mayne Scholarship (now, for the first time, at their disposal) should be allotted, were unanimously of opinion that in no way could they so fittingly show their respect for the memory of one of the most practical, and one of the ablest men of his day, as well as keep pace with the spirit of progress, as by making the examination purely a practical one, so that the competitors might truly feel that they were striving for future success as well as immediate honour. It will thus be seen why I cannot join with those who think such a desirable change in final examinations impracticable.

A word of explanation is necessary for the students whom I am addressing. Do not imagine, gentlemen, that I wish to add to your burthens, or throw obstacles in your paths. What I describe, and what I hope to live to see carried out, would hardly increase your work—would certainly not affect at all the better classes of students, as I have described them, and would only be a guide to the others, making them spend three winters in doing well what they now try to do badly in six months. It would prevent the young practitioner from having the feeling, which, to a conscientious mind must at times be absolutely agonising, that, through his own fault, he is only beginning to learn in his early practice, and, perhaps, at the risk of valuable lives, those essentials of his profession, which, as a student, he should have made himself familiar with. I believe there are many young men now qualified, who bitterly regret that there had not been some means of forcing them to make good use of their time and opportunities when students. And, moreover, gentlemen, I would not suggest that these changes should be made hastily or without timely notice and warning. I think that any immediate alteration would be a direct breach of faith with all of you who have entered the profession in the strength of existing arrangements. Should these changes ever be made, they will necessitate a great alteration in the system pursued in medical schools, but I am satisfied that teachers would lend their best assistance to carry out designs that would tend so much to the general elevation of their profession. I mentioned how one of our lecturers had anticipated and encouraged such improvements. It is but justice to the others to show how far they have advanced in the same direction. My colleague, the lecturer on surgery, feeling how little real utility there is in dwelling day after day on the dry details of that process which is known as inflammation, the knowledge of which may be readily gained from some of the text-books, prefers making his course as demonstrative as possible, not only going into the *minutiæ* of practical and operative surgery, which cannot

easily, if at all, be learned from books; not only illustrating his own observations, but also making the members of his class, each in his turn, perform the same operations, and thus endeavours to acquire that confidence and manipulative dexterity which practice alone can confer. The lecturers on medicine also make their course demonstrative by constantly illustrating them with the pathological specimens which the museum and the hospital dead-house so abundantly afford. I am thus particular in speaking of what may be done in systematic lectures delivered in a medical school, because a question as to the propriety of transferring medical and surgical lectures to the hospitals, and having them delivered there only, has been raised. I cannot see what advantage is to be gained by this change. If the hospital teachers merely lecture on the cases under their charge, they will do nothing more than is done at present, and will be giving an unsystematic, never-beginning, course; for accidents will not happen, and diseases will not present themselves in the regular order which would be required by a teacher who wishes to bring his class regularly through the subjects of medicine and surgery; and if the lectures be merely general discourses, not bearing on the diseases present, what improvement would they be on those given in the schools, which, I think, may be fairly looked on as complimentary to those of the hospitals supplying information on those subjects which, by chance, had not come into hospital teaching.

There is one more subject about which I wish to say a few words before concluding. I allude to private teaching, or, as it is more familiarly termed, "grinding." The introductory lecture has been frequently made the means of denouncing this, as if private teaching were a forbidden method of acquiring knowledge, of which the teacher and the pupil should feel equally ashamed. With great submission, those who condemn the system are either misled by the misapplication of terms, or they have not given the matter due consideration. I have had occasion in this lecture to use the word "cramming." It is this system, the propriety of which no one will attempt to defend, and which is merely the offspring of defective systems of examination, that deserves, and should receive, the condemnation so often erroneously accorded to true private teaching. "Grinding" is only catechetical, systematic instruction, and is one of the most powerful agents in counteracting those evils, which the want of sessional examination, as I have attempted to prove, produces. The lecturer, unsupported by these examinations, can never be certain that any member of his class will carry from the theatre the remembrance of a single fact. In like manner, the hospital teacher, even assuming that he strives conscientiously to do his duty, and constantly directs the attention of the class to the nature of the cases before them, cannot be sure but that they are looking with unobservant eyes, and hearing only to forget. And, notwithstanding the strong opinions which I entertain as to the necessity for hospital attendance, I fear it is in that that habits of idleness are most frequently contracted. A junior student whose capacity for work is not very strongly developed, enters the ward of an hospital, sees cases which cannot be at first attractive, hears terms which he cannot understand, and thinking that he will not be able for some time to comprehend, but believing that that golden period will eventually arrive, he defers applying himself closely, and so acquires what may be termed "a habit of inattention," which is then transferred to the lecture, theatre, or dissecting-room, and is the cause why eventually he degenerates into that character so well-known to students by the name of a "chronic." Now, this condition of affairs is at present best met by a judicious system of grinding. I do not mean it is necessary for all; but for *some* it is an essential, and to *all* it is an assistance. The junior students in a private class (and I think it most important to separate juniors from seniors) having had a certain subject, say the description of a bone, allotted to them to learn, the teachers question them in succession, endeavouring to find out what each remembers, corrects misapprehensions, explains away difficulties, and gains such an acquaintance with the individual abilities and idiosyncrasies of his pupils, that he can distribute his attention in such a manner, as to secure the general advancement of the class. There is a greater difficulty in teaching surgery to junior students, but the best way is to select some one pupil, and ask him what he had observed at hospital, to enlarge on that, making him explain what he remembers and understands, selecting a different pupil each day, without giving any notice. Thus, every man will go to hospital with the full determination of noting some case, to give the particulars of at that day's "grind." For the seniors, a more regular course, though the text-books is usually necessary, and is found practicable. This is the system of "grinding" that has suffered from the proverbial consequence of getting a bad name; a system, which, if fairly carried out, will never require more than an hour a-day from you, and about twice that from seniors. If a schoolmaster were to establish a school, on the principal that the children should never be (to use the familiar phrase) "heard their lessons," but should sit for hour after hour, listening to one teacher lecturing on Latin grammar, and another on Algebra, and so on, would those who condemn grinding be inclined to send their children to him? Yet the mere translation of a lad from a general to a medical school is supposed to produce such a radical change in him, that, henceforth, he is to be ashamed of acquiring his knowledge in the manner he had been accustomed to. I have entered thus particularly into the subject of grinding, because I know that many eminent men, and many for whose opinions I have the greatest respect, condemn it, but I think erroneously, and from the reasons I have mentioned. It may be remarked that I have mainly alluded to the teaching of the junior student. I have done so designedly for many reasons. I always feel my own sympathies going strongly with him. He stands more in need of help, and I believe that, in most cases, his whole career depends on what use he makes of, and what habits he acquires in his first year. Our experience at this school is that we hardly ever knew a man, who early distinguished himself, fail to fulfil that promise of future success. I can scarcely think of offering any advice to the seniors. I have endeavoured to point out some of the anomalies and defects in their profession, and to show how they may be concerned in their perpetuation or in their removal, leaving to others the more pleasing, though not more necessary, task of dwelling on its advantages.

In conclusion, I ask you, gentlemen, to remember the proud position which the Irish school of medicine occupies. You were lately exhorted in an address, whose wisdom and eloquence were alike worthy of your fellow-citizen, its distinguished author, to study the writings of Hunter, Pott, and the other fathers of English medicine. Do so diligently, but do not neglect those great works which have rendered Irish medicine famous; those memorials of the time when Graves and his contemporaries—many of whom, alas! have passed away—were the pioneers of new systems of investigations; those writings evidencing labours, the results of which are so familiar to us, that we are apt to under-estimate their importance, as well as the originality and patient concentration of intellect which they indicate. Take these eminent men as your examples, and resolve to preserve for the profession of your own country that exalted position which the labours of your predecessors have gained for it. Let not your ardour be damped by knowing that you will have difficulties to encounter both before and after your pupilage, but fortify yourselves with a firm determination to surmount them, and never to suffer the noble profession you have adopted to suffer deprecations in your own persons. Thus, by individual, as well as by combined, let us all endeavour, in generous emulation, to advance our profession in its glorious mission, the amelioration of human suffering, and approximate it as closely as aught earthly is permitted, to the state of ideal perfection.

Gleanings.

STRANGULATED UMBILICAL HERNIA.—We some time since (July, 1866, p. 271) called attention to M. Demarquay's observations on the subject of the fatal results which follow operation for strangulated umbilical hernia. The modification of it which he then described, and which essentially consisted in making as small an aperture in the sac as possible, had not then been attended with the success he hoped for, although this was nearly being the case, as the patient lived for forty-eight hours, and then died of secondary strangulation. Convinced of the correctness of the principle of avoiding extensive exposure of the sac, he has again operated on a lady sixty-four years of age, and with success. Strangulation had existed for three days, and fæcal vomiting, with great alteration of countenance, had set in. Having practised an incision over the tumour between five and six centimèters in length, he exposed the sac by carefully dissecting the tissues layer by layer, which, as the patient was stout, required some time. Seizing the sac with a forceps, he opened it just sufficiently to admit the index finger of the left hand, by which he hooked

(accrochait) hold of the constricting ring, and, gliding a probe-pointed falciform bistoury along the palmar surface of the finger, he relieved the strangulation by an incision of one and a half centimèter in length. The wound was united by five points of interrupted suture, and dressed with glycerine, small doses of opium being continued during two or three days. Recovery was complete. The prevention of peritonitis, which has always proved so fatal in these cases, M. Demarquay attributes to the smallness of his incision and slight consequent exposure. He made no attempt at examining the condition of the intestine, or at returning it into the abdomen. The tumour gradually became reduced in size, so that what was a voluminous hernia is now no larger than an egg. In M. Demarquay's former case he believed that he had not extended his incision of the constricting ring sufficiently, a fault he took care to avoid on this occasion.—*Union Méd.*

ON THE INFLUENCE OF NARROWING OF THE PULMONARY ORIFICE ON THE FORMATION OF PULMONARY TUBERCLES.—By M. LEBERT.—Presented to the Academy of Sciences.—The author, in the course of his researches on mechanical influences in the etiology of tuberculous affections, has been struck by the frequency of the occurrence of pulmonary tubercle in cases of congenital narrowing, either of the cone or the orifice of the pulmonary artery. This coincidence has been observed, in isolated cases, by Favre, Travers, Gregory, Louis, and Greveld, and during the last twenty years it has been noticed in one-third of the observed cases, often under circumstances in which no other etiological element of tuberculisation could be supposed to exist. The author has been able to collect twenty-four facts of this kind, a large number if the relative rarity of this affection be taken into account. The frequent development of tubercles in connection with this condition is the more striking, as nothing is more rare than to meet with pulmonary tubercles in alterations of the orifices of the left heart. Three forms of congenital narrowing of the pulmonary artery are to be distinguished—primitive narrowness of the vessel, which is furnished only with two valves, narrowing of the pulmonary arterial cone, and narrowing of the orifice. The last two are the results of endocarditis or myocarditis, and as ordinarily the interventricular septum is deficient, this inflammation must take place before the end of the third month of intra-uterine life. The foramen ovale remains often also open, the arterial duct more rarely. Hence, the circulation through the lungs is irregular and incomplete. Dilatation of the bronchial, œsophagean and coronary arteries of the heart, also of the subclavian, furnishes only an incomplete collateral circulation, whence arises imperfect nutrition of the lungs, so that they are observed to be small and incompletely developed. This irregular, unequal, incomplete circulation in places, gives rise to pulmonary tubercle, whilst the most intense and extended pulmonary hyperæmia from alteration of the bicuspid and tricuspid orifices does not conduce to its development. The author knows neither age nor disease which presents this proportion, *i. e.*, of one-third affected with pulmonary tubercle, and hence he can only refer it to pulmonary stenosis. The character of the turbercular attack is protracted, progressive, and fatal. Hæmoptysis is frequent, and it is ordinarily the left lung that is first attacked, and not the right, which the author thinks is the lung which ordinarily suffers first. The anatomical characters are the same as in other forms of tuberculisation.—*Gazette Médicale de Paris.*

THE CONDITION OF THE BLOOD AFTER DEATH FROM SNAKE BITE.—By Professor G. B. HALFORD, M.D.—In a case of poisoning by the bite of the cobra-di-capella, and in animals bitten by poisonous snakes, Dr Halford has found that the blood contains a number of nucleated cells. In a dog killed by the injection of cobra poison under the skin, these cells were of a perfectly circular form, with a diameter on the average of 1-1700th of an inch. The nucleus was nearly round, and 1-2800th of an inch broad. On the second day, on applying magenta, a minute spot became visible at some part of the circumference of the cell. This was visible in all. Of these cells there were many millions; they were present in the blood of every part of the body, but in much greater quantity in the dark congested parts of the lungs. In the poison of the snake itself, Dr. Halford found, besides epithelium and much molecular matter, nucleated cells of the same size as those seen in the blood of the dog, but no spot or macula was seen in the circumference. Dr. Halford believes that when a person is mortally bitten by the cobra-di-capella, molecules of living germinal matter are thrown into the blood, and speedily grow into cells, and as rapidly multiply, so that in a few hours millions upon millions are produced at the expense, probably, of the oxygen absorbed into the blood during respiration; hence the gradual decrease and ultimate extinction of combustion, and chemical change in every other part of the body, followed by coldness, sleepiness, insensibility, slow breathing, and death. Dr. Halford suggests that cholera may be due to the presence of foreign cells in the blood, and refers to an observation by Dr. James Cowan, published in the "Edinburgh Monthly Review," of some peculiar bodies in the blood of a cholera patient, and also to an observation by Virchow that the white corpuscles are increased in cholera, in support of the hypothesis.—*Pamphlet, Melbourne.*

Medical News.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following gentlemen obtained the licenses in Medicine and Midwifery in July, August, and September last:—R. W. Andrew, Rathmines; D. P. Barry, Twickenham; H. Beaumont, 41, Upper Rutland-street; J. Cooke, Over Windsford; R. A. Cuthbertson, Booterstown; P. O'C. Doyle, 38, Lower Fleet-street; R. L. Evans, 6, Belgrave-square; T. Fowler, Rathmines; S. Hamilton, Cork-street; D. C. W. Heather, 7, Waterloo-place; T. Saffan, Cecilia-street; W. Leonard, Sheffield; H. B. M'Louglin, Ballintubber; E. N. Martin, Burton-on-Trent; M. F. Moylan, Rathkeale; R. P. O'Gorman, 6, Richmond Avenue; P. M. Rice, Newry; J. Riddick, Harold's-cross; J. Ringwood, Mullingar; W. Roche, Ipswich; J. A. Spencer, 32, North Frederick-street.

The following obtained the licence to practise Medicine:—J. D. Crowe, 43, Heytesbury-street; R. Robinson, Golden Ball; J. C. Haverty, 52nd Light Infantry; J. Weir, Beverly.

The following obtained the licence in Midwifery:—B. F. M'Dowell, 29, York-street; W. H. Sexton, 16, Blessington-street; M. O'K. Morris, Killenaule.

THE LATE BANDSMAN M'DONNELL.—The officers of the 2d Life Guards have presented a handsomely-chased silver inkstand to Mr. E. Collett Shoppee, the house-surgeon of University College Hospital, in recognition of his attention to Corporal M'Donnell, who was shot in Bloomsbury, some few weeks since.

BAD VENTILATION A CAUSE OF SLEEPING AT CHURCH.—The Rev. Dr. Guthrie, last week, at the re-opening of some school-rooms after alterations, delivered an address, in the course of which he said—"I do not intend, because I am not very able, to address you at any length, especially in such a close and heated atmosphere as this, because we are very closely packed this evening, and whether there is sufficient ventilation in this place for such a large audience I have some doubts. I am a great admirer of ventilation and fresh air, and I think it should be had, if possible, on all occasions. I remember that in my native city of Brechin, Lady Carnegy, who set up a school in the tenements, asked one of the little girls attending it what was the effect of opening a window. (Here one of the windows of the room was suddenly drawn down amid laughter and applause.) Her ladyship supposed the little girl would answer that it let in the fresh air, but it was not so. Her answer was this—and we may have a proof of it immediately—"it let's in the cauld." But, though that may be quite true, I am a very great advocate of fresh air being admitted into schools and houses. I sleep with my bedroom windows open every night. Some people might think that that would kill them, but it is well you should know that foul air is as bad for the health as foul meat—for air is just food for the lungs—and one reason why you see so many people going to sleep in church is, not because they have a bad preacher or a bad sermon, but because they have bad air. I remember I was once present in a congregation in the town of Thurso, which contained as many as 1200 people, and, perhaps, you will hardly believe me when I tell you that on that occasion I saw what I never saw before, and what, I am sure, you never saw, and what I hope I shall never see again. I saw 600 people asleep! 600 people asleep! I happened at the time to be living with Sir George Sinclair, a very excellent gentleman, who resides in the immediate neighbourhood of that town. I told him what I had seen in the church. "Oh," said he, "that is nothing to what I have seen myself; I have seen in almost every pew the whole people asleep, with only here and there an exception." Now, what

was the cause of that? It was no fault on the part of the preacher; for the minister, Mr. Taylor, is an excellent preacher, and excellent people the congregation generally are; but I told them, in addressing a meeting some days after, every man might as well have gone into an apothecary's shop before he went to church and taken a dose of laudanum to set him to sleep. I say they might as well have done that as breathe the kind of air with which the church was filled. Now, I wish you to take care that you get plenty of fresh air, which is so essential to good health."

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, and only on one side of the paper.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

The extent to which the Introductory Addresses at the Medical Schools of Ireland occupy our columns, obliges us to postpone the following communications:—

Description of a new Dovetail Stricture Dilator, by B. W. Richardson, (*Illustrated*). Mr. Macilwain on Surgery. On Prognosis in Heart Disease, by J. C. Thorowgood, M.D. Case of a Foreign Body in the Air Passage, by J. Morgan. F.R.C.S.I. A Case of Paralysis cured by Electricity, by N. J. Butler, M.D. Hospital Reports—The London and Mater Misericordia. The Report on Wine. Summary of Science. Reviews and several letters.

Dr. B. requests to be informed whether it is competent for a coroner to refuse payment for medical services, on the ground that he is not registered, although he is a Licentiate of the Royal College of Surgeons in Ireland:—

Clause 28 of the Coroners' Act, (9 and 10 Vic. Cap. 37) provides that *it shall and may be lawful* for the coroner to pay any medical witness summoned by him, a guinea for evidence, and a guinea for a post-mortem examination when required. Clause 33 provides that he shall summon as such witness, "*any legally qualified* medical practitioner being at the time in actual practice, at or near the place where such death happened." There can be no doubt, that as a *legally qualified* practitioner, our correspondent might be paid by the coroner, although he be not registered, but as the payment is simply permissory, and by clause 32 of the Medical Act, unregistered persons are barred from recovery of fees "for any medical or surgical advice, or attendance," we fear the coroner cannot be made to pay. If our correspondent acted on the coroner's order, the matter may be regarded as a simple contract, and by registering at once, he might qualify himself to recover the amount, as the Medical Act only requires registration at any time previous to proceeding in the court of law.

Enquirer.—The price of McClintock's Midwifery is 14s., published by Fannin and Co., 41, Grafton-street, Dublin.

Registration.—For the information of our numerous correspondents on this subject, we beg to draw their attention to the following official letter from the Chief Clerk at the Office of the Registrar General:—

"The law as enacted in 6 and 7 Wm. IV., cap. 86, with respect to the registration of births and deaths is—that no person is under a legal obligation to go to the registrar for the purpose of registering either of those events; on the contrary, it is the bounden duty of the registrar, upon being informed that a birth or death has occurred in the district, to go and register it at the house where it took place. It is *not* essential that a death should be registered previous to burial; and whenever the corpse of a person whose death has not been registered be interred, you will have fully complied with the requisitions of the statute, by giving notice of the funeral rite to the registrar of the sub-district in which the death occurred, within seven days next following the burial. Such notice may be sent by post."

Mr. D., The Castle.—The following are the qualifications of the gentleman to whom you refer in your note:—M.R.C.S.Eng., and F.L.S.

Alpha.—The case appears to be plain and easy of diagnosis, and within the scope of any medical man. We cannot give medical advice in our columns.

BOOKS, PAMPHLETS, &c., RECEIVED.

The Nature and Affinities of Tubercle. By Reginald Southey, M.D., London: Longmans, Green, and Co.

Excision of the Knee-joint. By P. Heron Watson, M.D., F.R.S., Edinburgh: Maclachlan and Stewart.

Germinal Matter, and the Contract Theory. Second Edition. By James Morris, M.D. London: John Churchill and Sons.

The Journal of Anatomy and Physiology. By Professors Humphry and Turner. London: Macmillan and Co.

The Medical Investigator.

MEDICAL APPOINTMENTS.

ROBERT HAMILTON, M.R.C.S.E., L.A.C.Lond., and L.A.H.Dub., has been appointed Medical Officer and Public Vaccinator of the North District of the Derby Union, vice Thomas Harwood, Esq., deceased.

JOHN S. A. CUNNINGHAM, M.D., L.K.Q.C.P.I., L.R.C.S.I., &c., has been appointed Medical Officer, Public Vaccinator, Registrar of Births, Deaths, and Marriages, Constabulary Surgeon, and Certifying Factory Surgeon to the district of Ballibay, county Monaghan, in the Castleblayney Union, vice J. W. Young, M.D., appointed to the Mountjoy Convict Prison, Dublin.

MARRIAGE.

MONTGOMERY—PARKINSON.—On the 17th ult., at the British Legation, Brussels, by the Rev. C. Moffatt, Edwin Cuthbert Montgomery, L.R.C.S.I., L.S.A.Lond., of Maidenhead, Berks, fourth son of Robert Montgomery, Esq., late 95th Regiment, of Cullenswood, Dublin, to Dorothea Hester, third daughter of the late William **Handcock Parkinson, M.D., F.R.C.S.I.**

Advertisements.

NOTICE TO ADVERTISERS.

The Medical Press and Circular

OFFERS UNUSUAL ADVANTAGES

FOR the Insertion of announcements from its extensive and largely increasing circulation in each of the three divisions of the United Kingdom and the Colonies. Being also supplied to the Hospital Libraries, &c., it will be found a most valuable medium for Advertisements of Books, Vacancies and Appointments, Sales, and Transfers of Practices, Surgical Instruments, Chemicals, and Trades generally.

The scale of charges is as follows:—

Seven lines and under	£0	3s.	6d.
Per line afterwards	0	0s.	6d.
One-quarter page	1	0s.	0d.
Half ,,	1	15s.	0d.
One ,,	3	0s.	0d.

The average of words per line is twelve.

When advertisements are given for a series of insertions, a very considerable reduction from the above scale is made.

☞ Advertisements for Insertion in this Journal must be at the OFFICE, on MONDAY, by THREE o'Clock.

ROYAL COLLEGE OF SURGEONS, IRELAND.

THE ANATOMICAL HALL of the College is open Daily, and the Dissections are superintended by the Professors of Anatomy, assisted by the Demonstrators, at the following special hours:—

10 to 11—Drs. STONEY, KNOX, and ROE.
11 to 12—Drs. STONEY, MACALISTER, and S. HEWITT.
12 to 1—Anatomical Lecture by the Professors.
1 to 2—Drs. CROLY, MACALISTER, and D. B. HEWITT.
2 to 3—Dr. KNOX and S. HEWITT.
3 to 4—Drs. CROLY and ROE.

Apothecaries' Hall of Ireland, 40 Mary-street. The following new Medicines and Preparations are manufactured in the Laboratory on the premises, and a supply constantly on hand:—

THE NEW PREPARATIONS OF THE PHARMACOPŒIA, 1867.
TICHBORNE'S VESICATING COLLODION.

Tetrachloride of Carbon. Æther for Local Anæsthesia. Syrup of Phosphate of Iron, Quina, and Strychnia. Chlorate of Quina. Carbolic Acid, pure and crude (the latter free from Sulphuretted Hydrogen).

ADJOURNED ELECTION.

OMAGH UNION.

OMAGH DISPENSARY DISTRICT.
EAST DIVISION.

MEDICAL OFFICER WANTED for the above District, who will be required to reside at Carrickmore.

The Committee of Management of the Omagh Dispensary District, will, at their Meeting to be held at the Committee Rooms, Omagh, at the hour of one o'clock P.M., on Saturday, 30th November, 1867, proceed to elect a properly qualified Medical Officer, at a salary of £80 per annum, together with Registration and Vaccination fees, and Ten Pounds per annum guaranteed by Sir J. M. Stewart, Bart.

It is requisite that candidates be in attendance at the hour of meeting, possess the qualifications required by the Poor-law Commissioners, and lodge their Applications, Testimonials, and Diplomas, with the Honorary Secretary, at the Committee Rooms, Omagh, not later than Twelve o'clock noon, on the day of meeting.

ANDREW RODGERS, Hon. Sec.

Glenfern, Omagh, October 30, 1867.

WOODHALL Spa and Hotel, near Horncastle, Lincolnshire.—This well-known Mineral Spa, which has been for many years highly recommended by the Faculty for the cure of Strumous Complaints, Tumours of various kinds, Rheumatism, Gout, Epilepsy, and Specific Constitutional Diseases, especially those of the Skin, is now in first-rate order. The Hotel replete with every comfort, and the charges moderate. Hot, cold, shower, and hip-baths always ready. This Spa contains more Bromine and Iodine than any known water; and its curative powers are unsurpassed.

The Woodhall Spa Station of the Great Northern Railway closely adjoins the beautiful grounds of the Hotel. The water will be supplied bottled, or in jars, on application to the Bath-man.

June 1, 1867.

DISEASES OF THE EYE AND EAR.

DR. ARCHIBALD H. JACOB will Deliver, during the present Session, a full Course of Lectures on the Diseases of the Eye and Ear, and the Operations necessary for their Treatment, at the City of Dublin Hospital.

Address.

THE ADELAIDE HOSPITAL.

INTRODUCTORY ADDRESS.

By ALEXANDER MACALISTER, M.D., L.R.C.S.

GENTLEMEN,—At the commencement of a new session, it devolves upon me, on behalf of my colleagues, to bid you welcome. Many of you have sojourned with us here during one or two past sessions, and are familiar with the practical working of this institution, but some now for the first time enter upon the active duties of a career of professional study. To both classes I have a few words to say to-day as introductory to a season, which I hope will be one of hard work, both on the part of teacher and student.

To those of you now for the first time entering upon the varied paths of medical study, to whom everything is new, much obscure, and some objects even repulsive, I would first congratulate you in your choice of an hospital. Each school and each city has its own way of teaching, and there aresome peculiarities in the Dublin system which, I believe, render it superior to some others. Here we have numerous general hospitals of moderate size, instead of two or three monster establishments monopolizing clinical teaching. Now, there are doubtless great advantages in point of variety of cases, &c., in very large hospitals, but recollect, it is of infinitely more value to have a moderately large number of cases stereotyped in your mind ineffaceable, than to have transient impressions of myriads. It is not the attendance on great operations, exciting though they be, that fits a man for the work of his after life, for in private practice these are very few and far between; it is the steady watchfulness over selected cases, each series forcibly impressed before the impression is dissipated by too great a variety. Among the many valuable hospitals in this city, I am proud to say that this institution is second to none in point of its educational capacity; and of the different advantages which your teachers will bring before you, I trust that you will watchfully avail yourselves. Here we have a sufficient number of cases always under your eye, and our children's ward and fever wards, give ample opportunities for studying special diseases; while, at our dispensary, which I would venture to say is one of the largest in Dublin, we have crowded attendances of the suffering poor of all classes, admitted without any other qualification than that of sickness or accident. During the last year, upwards of 18,000 cases have presented themselves for advice, and surely that constitutes material ample for any purposes of instruction. And I can truly promise that if you only work as hard to learn your profession, as my colleagues and I will work to teach you, there will be a class going in for examination from this hospital, such as the examining board of the college has rarely seen the equal of from the beginning.

We have likewise instituted a special ophthalmic department in which diseases of the eye will be explained, and when I say that it will be presided over by Dr. Stoney, I need say no more regarding its efficiency of management.

Now, to those of you who are now commencing your studies, I would give a little counsel on some matters. There are two objects before every medical student, a proximate and an ultimate. The first is that of passing his examination; the second, and by far the greater, is that of fitting for the subsequent active duties of a professional life. It is, unfortunately, quite possible for a student who walks the wards of the hospital occasionally in the morning with his hands in his trousers pockets, and with a short cane under his arm, by diligent reading and grinding, to accomplish the former object, and it is possible, too, for the same man to get a good place at the Army Board as a fully qualified surgeon, but it is this sort of man who will put his tourniquet below the wounded vessels, and will, in amputating, make his flaps the wrong way, bringing thus himself and his teachers into disrepute. You may take it as an axiom that it is absolutely impossible to fit yourselves for the active duties of professional life but by attending to the daily and practical details of hospital work from the day of your commencement. You will not find it easy to do this at first; the duties may be irksome—study is always a weariness of the flesh, but remember—*nil sine magno vita dedit labore mortalibus*, and by degrees, if you patiently follow up your work, you will be amply rewarded; it is not great spasms of work, and alternate periods of idleness, that prove advantageous either as modes of labour or relaxation. It is not the freshet or the flood that wears the channel in the rock. *Gutta cavat lapidem non vi sed sæpe cadendo.*

The first principle which I would inculcate is, that you should adopt a plan regularly for your daily course not to be departed from under ordinary circumstances; you cannot attain to this without punctuality, but as that virtue is one of the most important in life, you cannot take too much pains to cultivate it. Be at your hospital at nine o'clock every morning in time to meet the visiting surgeons. You have very much to learn from them during your first year; and though I would not encourage you to devote much of your time and attention to the practical details of hospital work during your commencing session, yet, I would strongly urge you to lose no opportunity of gaining information from your teachers. During your first and second years you will find it necessary to devote your time and attention to anatomy chiefly, not in the class-room or lecture-room alone, but in the dissecting-room; and in doing this, endeavour to make your fingers and eyes as well acquainted with the tissues of the body as your brains; familiarize yourselves with all parts of the human frame in health, and you will find it an extraordinary help to your investigations of structure in disease. But while chiefly attending to your anatomy attend the hospital carefully, and take pains to read a little upon each case that you see, so as to try and keep up with the clinical remarks made from day to day. Let your plan of study be something of this kind:—First, having provided yourselves with a text-book on every one of the subjects of your course, and your teachers will easily enable you to choose the best in each line, I would recommend you during this session to learn the names and modes of examination of disease, the classes into which diseases are divided, their localities and leading features. Study carefully the bones and joints, and thus make yourselves masters of the foundations of anatomy, work out the anatomy of the muscles in the dissecting-room thoroughly and well, learn the connections and position of the viscera, the localities of the main arteries, and the regions of the body. Above all, in the dissecting-room, strive to make your dissections neat, it is by many looked upon as a waste of time to clean a subject thoroughly in your dissecting-room, but I assure you it is nothing of the kind, and it is only when you will come to work on the living body that you will find what a good thing it has been to take pains in examining the structures in your anatomical subjects. In addition to this, attend to your lecturer on physiology, and learn something of the working of that wondrous machine, the human body; and above all, this season, take up one or other of the collateral sciences, and cultivate it in your spare hours. Chemistry is the study of the greatest powers in the world, one teeming with interest, and one, a knowledge of which is necessary before we can understand a sound physiology. Botany is an easy and delightful study, and one which cultivates the observing faculty to the highest degree—take either of these and work it—and you will find the relaxation in so doing to be far better in kind and far greater in degree than the false excitement of the theatre, or the equally pernicious sensation novel; and if you do these things for your first session you will have gained several ends, you will be accustomed to work, you will have laid a good foundation of knowledge, and your subsequent studies will be all the easier. It is when these principles have been thoroughly attended to, that the catechetical system

of instruction, miscalled grinding, which is nearly peculiar to the Dublin school, is of use, and its usefulness is proportionate to the amount of absolute study and preparation made by the student beforehand; it is, indeed, to your industrious men that this system is invariably the most beneficial. If, in the summer recess, you wish for any exercise of use, I would recommend to you two; one, the study of German, the other the art of drawing, the former is the most useful practical language in the world, even French is comparatively useless to the student when contrasted with the grand old language of thought, in whose literature the fullest and best value, and information on almost every subject will be found. The latter accomplishment is one of great practical utility as a means of preserving records of cases in a form the most striking and easily understood.

With regard to your reading, I would caution you, among other things, to beware of that vicious habit of skimming books so fatal to the student. Take one good text-book and read it thoroughly and well, then, and not till then, read such parts of others as bear on subjects in hand, but whatever you read, do it with concentrated attention, for, otherwise, though you have gone over all the college library you would be very little the better for it. An acute thinker once said—*cave hominem unius libri*, and I think it was Butler who made the remark, that he never was afraid to meet in argument with a man who had a large library. The next counsel which I would give you is, attend with regularity to all your lectures; your instructors take pains to prepare to teach you, and it is only courteous that you should be as regular to endeavour to learn. Some may be better worth attending than others, but remember that all of them know many things that you will require to learn, and that the habit of concentrating your attention thus acquired is worth all the trouble of the concentration, and all the time spent in the class-room. I would recommend you likewise to acquire the habit of taking notes of lectures, then of transcribing them and reading them over afterwards; indeed, in your reading you will find it a good, though perhaps a slow plan, to jot down in your own words any striking thought or new fact that you may meet with; thus, your note-book will be the quickest and most complete cyclopædia of your reading that you could possess. Such writing does not weaken the memory, on the contrary it stimulates and strengthens it. Demosthenes tells us that to improve his style he copied out Thucydides' history eight times, and you would find it a capital exercise and a ready mode of purifying your style and method of expression if you would take notes from such books as Miller's Surgery, Watson's Practice of Physic, or Carpenter's Physiology.

To those of my auditory who have already been initiated into the study of medicine, I would say, your time of probation is shortening, therefore, it behoves you to work hard and avail yourselves of all the facilities for study which we offer you. Be diligent in noting cases and tracing their history and treatment, thereby alone you will gain that experience which will render you successful in your profession. Medicine occupies a rather anomalous position among the sciences, for it is one that has to do with vitiated actions, not natural phenomena, and, to use an illustration borrowed from astronomy, the perturbations of the natural course of phenomena are so varied and dissimilar, even when springing from causes apparently alike, that it takes a clear mind and a concentrated attention to follow the track of these, and to reason thence to the laws which preside over disease, and thus medicine requires a deep insight into anatomy and physiology as its basis, or else it is nought but an empirical art.

The man who imagines that he is a physician because he knows that calomel is good for this case, and opium and tartar emetic for the other, and quinine for the third, is in reality very little better than the blacksmith who told Sir Walter Scott that he physicked the country side with two drugs, laudamy and calamy, and sometimes tried one and sometimes the other. Such a man is really but an empiric, or in plain English a quack, although he be decorated with all the honours which the colleges can bestow. True, there are many cases in which the most skilful can do little upon scientific principles, but these are happily becoming the exceptions in practice, not the rule, and as science brings her aids in the form of the endoscope, the stethoscope, and microscope, new facts and new laws are constantly being brought to light, assisting in our practice. In spite of all these, however, we have still much to learn; it is ever true that

"Science moves but slowly, slowly, creeping on from point to point."

but it is better to creep on with science, than to try rash leaps into fancy, and find ourselves landed into the mire of uncertainty.

Medical science, every year, is extending the fixity of its basis, and every year its aids are increasing in number, and in the certainty of their teaching. A few years since, and all that even the most accomplished surgeon had to guide him in the diagnosis of the deeper diseases of the eye, was the uncertain evidence of symptoms, or the dim or obscure appearances to be seen by an external inspection; now every year brings its improvements in the construction of the ophthalmoscope, an instrument by which the deepest recesses of the organ may be brought within the range of vision, and even magnified views of the interior of the structures of the eyeball can be distinctly obtained. Thus diseases can be recognised, remedies used successfully, and, by timely treatment in the arrest of early disease, much suffering and misery are obviated. Formerly, diseases of the larynx and throat were the subjects of very great doubt and obscurity, and even in cases where local applications to the membranes lining the upper opening of the air-passage were deemed advisable, there was much difficulty in applying the required remedies. So much uncertainty, indeed, attended the application of any instrument, that in a case in which an eminent physician in New York had introduced a tube into the air-passage, as he supposed, with the greatest care, the patient, by vomiting through the tube, demonstrated that even the tactus eruditus of the physician was at fault.

Now, thanks to Czermak and others, we are able to see, by means of the laryngoscope, the interior of the entire voice organ, to detect lesions, and to apply, under the guidance of our sight, any medicament which we may deem necessary for the diseased surface. Thus medical science is advancing, in every department of its allied branches an annual improvement is taking place, and external scientific aids to medicine are fast raising the status of the practice of the physician from a mere art into a science. I can illustrate this, perhaps, in the most striking manner by a reference to a very few of the advances which have been made during the past year in the departments with which I am myself more particularly identified, namely, anatomy and physiology, in their bearings upon practical medicine.

During the past year much light has been thrown upon the structure of those obscure bodies, the supra renal capsules, by that patient and indefatigable worker, Julius Arnold, of Heidelberg. He has shown that the cortical matter is composed of a threefold structure, which he names zonæ glomerulosæ fasciculatæ and reticularis; he has demonstrated that there is a twofold system of cortical blood-vessels in this part, and that Leydig and Kölliker have probably mistaken the nature of the medullary corpuscles in considering them as nervous; from his researches the supra renal capsule will probably take place as a blood former or modifier. Chrzonszczewsky has shown that the radical lymphatics are in direct communication and continuation with the corpuscles and vacuoles of connective tissue, which explains the frequency of lymphatic complications in erysipelas, and other similar diffuse areolar diseases; he has shown that the wall of blood capillaries is twofold, one a structureless external, and second, a fusiform series of epithelial cells differing from the polygonal cells of the smaller arteries. The same accurate observer describes a complete epithelial lining to the air-vesicles of

the lung, thus affording additional evidence on one of the most vexed questions of anatomy.

Bischoff has made many striking discoveries in nerve physiology and anatomy, especially in unravelling some of the more puzzling meshes of structure about the head; he has shown that the lesser petrosal nerve does not join the genuform swelling of the portio dura, but that, as Böck suggested, the communicating trunk is an artery. He has also shown that there are no anastomoses between the three great special sense trunks and other nerves. Thirdly, he has unravelled the connection between the lingual and the pneumo-gastric which he describes as purely areolar, and has shown that the union of the vagus and spinal accessory is inseparable. Max Schultze has made elaborate investigations with regard to the nature of the component parts of the retina, and has done much towards unfolding the uses of that layer, first described by our late worthy Professor of Physiology in the College of Surgeons, Ireland, Dr. Jacob. From certain facts in comparative anatomy, he has inferred that the bacilli of that lamina are perceptive of the quantity of light, while the bulbs and cones are perceptive of its colour and quality.

In our acquaintance with the physiological actions of certain remedies, we have obtained much new knowledge within the past year.

Dr. Brunton, of Edinburgh, has given us a great amount of information on the physiological action of digitaline, showing—1st. That it increases primarily the strength, while it diminishes the rapidity of cardiac action; 2nd. That it at first contracts the capillaries, but finally they dilate before death; 3rd. That it acts as a primary diuretic in health. Aconitine has been investigated by Achscharumow, who shows that it paralyses the motor nerves of the heart, does not affect the brain, irritates the medulla oblongata, and, by paralyzing the vagi, lowers the temperature and blood pressure. Gamgee, of Edinburgh, has followed Hoppe Seyler, Bernard, and Meyer, in investigating the action of charcoal fumes and carbonic oxide. When blood is placed in contact with this gas, the carbonic oxide displaces a portion of the oxygen contained in combination with the hæmoglobin, and gives rise to the formation of a definite compound nearly incapable of reduction, an important fact as showing the dangerous mode of operation of this poison on the body. The action of the calabar bean, so lately introduced as a powerful agent in ophthalmic surgery, has been thoroughly investigated by Laschkewich, Fraser, and Robertson, its effects have been proved to be the increase of arterial tension, followed by a sudden and rapid diminution; a sympathetic paralysis shown by permanent capillary dilatation, myosis and cessation of the peristaltic action of the intestines, and by the increase of secretions, mucous, lacrymal, and salivary; these properties show it to be a remedy of great power and promise, and the success which has hitherto attended the limited application of it in tetanus, and other nervous diseases, in the hands of Giraldes and Watson, lead us to hope great things from its more extended use.

The observations of Leyden on narcotism are likewise worthy of note, as confirming our previous information on that subject, proving that the influence of narcotizing agents increases the endocranial blood pressure, and mydriasis results from the last named condition.

Strychnism has been the subject of examination by Dr. Ingram Spence, who maintains that its action is not principally on the true motor cells of the spinal cord, but on a second series of intermediate cells, and this agent has been chemically detected in the spinal cord by Gay.

An important branch of practical surgical physiology has been investigated by Hermann, of Berlin, namely, the influence of anæsthetics upon the brain and nerve centres, and he has shown, among other things, that chloroform, ether, amyl, and all are capable of dissolving the blood corpuscles, a property due to the solubility of the new principle protagon, described by Liebreich, which is supposed by Preyer to be a phosphoretted fat; Hermann has found that this principle exists in considerable quantities in the brain, and has originated a physical theory of anæsthesia that it is due to the chemical action of the inhaled agent conveyed by the blood from the lungs to the brain capillaries.

Now, I have brought all these modern scientific researches, and they are but a few of those which last year has produced, under your notice, for the purpose of showing how much in one department has been done towards the formation of a correct pathology; and, as I will mention subsequently, a true reliable pathology is the only possible basis for a correct and successful medical practice. It should not be for us blindly to adhere to any line of ideas because our fathers held them before us, but to weigh the evidence given to us by all reliable investigators, and to judge for ourselves regarding the conclusions to which we should come.

Now, I believe the proper course of study for one who wishes to be a true physician is, first, to make himself familiar with all that is known of the anatomy of the human frame, the minute anatomy even. It is a common thing to hear students saying, "Oh, there is no use in our learning the vidian nerve, and those very minute things;" and it is not long since some sapient practitioner complained of the Court of Examiners for expecting the candidates for letters testimonial, to know the structure of the eye, of the sympathetic and the spleen. But I tell you there is scarcely a nerve-twig in the body which might not give rise to anomalous symptoms, which would give you endless trouble to understand unless your knowledge of anatomy be sufficient to enable you to explain them. Study, then, the minute anatomy of the human body; and with anatomy, study physiology, for, as Abernethy once expressed it, in his own peculiar quaint phrase, anatomy without physiology, is like an old maid without a dowry. The next step is to gain a knowledge of the changes which the organs in the body undergo in disease, and this constitutes part of the science of pathology, which embraces not only the study of the changes produced by disease, but also the causes which produces these alterations. This science is, as I have said, the basis of all rational medicine, and until it is studied, even more carefully than it has been hitherto, and more scientifically and systematically in connection with symptoms, we cannot expect to be able to frame a true and perfect system of medicine. The next, and equally important part of your medical education is that which deals with the remedies you are to use in the course of practice, and although the appearances, natures, and properties of each can only be taught in the chemical laboratory, the materia medica lecture room, and the botanical class-room, yet it is in the hospital that you have to learn the exact effects of each remedy on the human frame. The physician deals with remedies of immense power, for good or evil, according to the use made of them, and he who meddles with them without a thorough understanding of what he does, is liable to do an immensity of harm.

With regard to each remedy you have to learn—first, what are its effects when given to a healthy subject? and your class-books will furnish you with abundant material for study in this respect. Secondly, you have to study what are the diseased conditions which your remedies enable you to combat, and you will see at a glance that without pathology, therapeutical science is powerless, for, as opposite pathological conditions frequently produce symptoms in some respects closely resembling, it is manifest that he who treats disease with reference to symptoms, and not to pathological causes, will fall into many and egregious blunders. Doubtless this latter mode of medical practice is easy and saves labour, but it is not founded on a true basis, and is open to many and grievous failures. The true scientific basis of medical practice, after which we are all to strive is this, the recognition of the immediate producing cause and conditions of disease, and the correct remedies to remove the morbid conditions and counteract the cause.

But this will require hard work, intense study, diligent

attention, without which, in this age of competition, you will not succeed. Above all, never be ashamed to ask a question if you are not acquainted with any fact or theory, do not be afraid to ask about it. Perhaps few men ever accumulated such a fund of fact or incident as Sir Walter Scott, and this to some extent was his secret. He tells us that he never met a man from whom he did not get some point of information which he did not know before. Remember you will never in after life have such opportunities of learning as you have now, and you have many more advantages of acquiring information than numbers who have had their names inscribed on the roll of fame. You remember the young apprentice of the bankrupt carpenter of Kilbride, who made his way to London, and setting about medical studies with a will, earned for the name of John Hunter the veneration of his successors; or the young blacksmith, known to us as the much-honoured Velpeau, so lately lost to science; or the only son of the poor Coblentz shoemaker, who revolutionized the classification of the animal kingdom, wrote the best book on physiology of his time, and who left a name imperishably associated with the human body as long as the retina has Müllerian fibres, the kidney its capsules, or the Wolffian bodies possess excretory ducts.

The profession which you have chocen has few very great rewards; no snug sinecures with thousands a year and little work. With some in it, there is little to earn and many to keep. But, perhaps, it is not much the worse of that, for there is the less temptation to venality and time-serving. It is the highest point to which any of us can strive, that we preserve a good character for knowledge and skill, and an unspotted reputation, but even that is a sufficient reward for a life of labour. Your place in society will be a high one, unless you forfeit it voluntarily, and few have greater influence and wider spheres of usefulness than the members of our profession. "Honour a physician with the honour due unto him, for the Lord hath created him. For of the Most High cometh healing, and he shall receive honour of the King. The skill of the physician shall lift up his head, and in the sight of great men he shall be in admiration."

Original Communications.

DESCRIPTION OF A NEW DOVETAIL STRICTURE DILATOR.

By B. WILLS RICHARDSON, F.R.C.S.I.,

EXAMINER IN THE ROYAL COLLEGE OF SURGEONS, AND SURGEON TO THE ADELAIDE HOSPITAL, DUBLIN.

In the number of this journal for the 3rd of last April, I directed the attention of the profession to a stricture dilator, constructed upon the dovetail principle, which appeared to me well suited to meet the objections that have been advanced against dilators in which the forcers are conducted home upon a rod soldered at the vesical end only, as in the Perrève instrument. I shall here observe, as I have already done, in my communication of April, that I include under the name of Perrève, every dilator constructed upon his principle—*i.e.*, having the conducting-rod soldered and fixed only at the vesical extremity. Perhaps, however, the comparison may be unfair with respect to Perrève's dilator, inasmuch as its conducting-rod being very long, differs thereby from the rod of the English instrument, which is so short as to render a serious accident a matter of possibility.

It may be recollected by those readers who saw my illustrations of the dovetail dilator published in April, that the male portion of the dovetail is placed upon, and forms part of, the lower blade, the forcer being traversed by a canal, deficient inferiorly, for the passage of the neck of the dovetail conductor while the instrument is in action.

Since the appearance of the description of the dilator in April, I have been informed that one with the dovetail arranged *as in it*, cannot be made of the *small* guage of the *finer* Perrève dilators, and at the same time have the solidity it should possess.

By the *finer* Perrève dilators, I mean those with a guage from end to end, of 2, 3, and 4 of Weiss' scale.

When, however, the relative positions of the component parts of the dovetail are reversed, the lower blade being hollowed by the dovetail canal, for the passage of the male portion formed along the lower part of the forcer, the dilator can be made of the calibre of the finer Perrève dilators, and have the strength and solidity necessary for safety while forcing a stricture.

The alteration in the relative positions of the component parts of the dovetail dilator were suggested to me, and practically demonstrated by the excellent wood-engraver, Mr. Alfred Oldham, who constructed a most ingeniously formed model of the instrument.

I must not omit to caution the surgeon regarding the manufacture of the dovetail dilator, as Perrève wrote concerning the manufacture of his dilator, that it should be perfectly made, so "that with solidity there should be joined an exact precision."*

I can scarcely conceive, as regards surgical instruments, a greater mistake than that of using the cheap imitations of the manufacture of first-class makers. These counterfeits, to the eye, look as well as the good instruments. But there are frequently in the materials of which they are composed, elements of danger which may, at any moment, bring trouble upon us. It was for this reason I selected, for the making of the new dovetail dilator, a firm of a world-wide reputation, the Messrs. Weiss, whose name alone, is a sufficient guarantee of the excellence of its construction.

The new dovetail dilator, as I have just mentioned, may be made of very small calibre, and possess the required strength for safe working. Thus, my instrument is only large No. 2 at the point, then gradually rises to No. 3, and finally to No. 4 (Weiss' guage), which it retains to the handle.

DESCRIPTION OF THE NEW DOVETAIL DILATOR.

The dilator, like Perrève's, is composed of two blades soldered together at their vesical ends (Figs. 2 and 4, Plate).† Instead, however, of there being a conducting-rod, this form of conductor is altogether dispensed with; and, therefore, when the instrument is in use, it is composed of, viz.:—

(1.) The two blades, with their corresponding half-handles.
(2.) The two clamps, fixed by screws to the lower half-handle
(3.) The forcer.

The lower blade differs essentially from the lower blade of the Perrève dilator, which is merely slightly grooved for the play of a small portion of the circumference of the conical forcer of that instrument. In the new dilator the lower blade forms the greater portion of a cylinder, which would be complete only for an interspace along its upper wall, for the passage of the neck of the male portion of the dovetail of the forcer. (Figs. 2, 3, and 4, Plate.)

The upper blade is slightly grooved, to correspond to the upper margin of the forcer. (Figs. 3 and 4, Plate.)

The large end of each blade is soldered in a central groove channelled the whole length of its corresponding half-handle. (Figs. 2 and 3, Plate.) The half-handles are identical with the half-handles of the Perrève dilator, excepting the dovetail groove in the lower one. The Perrève handle is so excellent that we have retained it, although the new dovetail dilator does not require so careful an arrangement of handle, as the conducting-rod and conical forcer combination.

The soldered vesical end of the dilator is traversed by a canal. (Figs. 2 and 4, Plate.) This canal is continuous with the grooves in the two blades, which blades, when grasped by

* *Traité des Rétrécissements organiques de L'Urètre.* P. 288. Par Victor Perreve. A Paris, 1847.

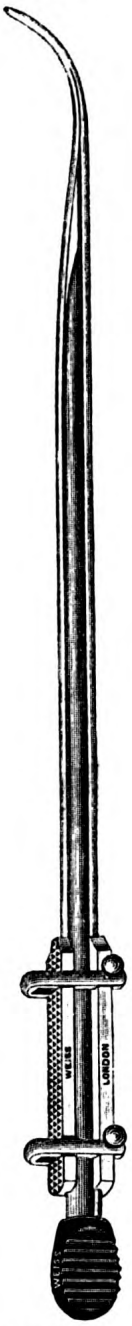
† The Engravings by Messrs. W. and A. Oldham.

THE DOVETAIL DILATOR.

Fig. 1.

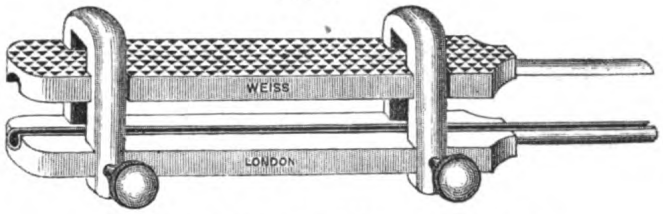
Dovetail Forcer.

Fig. 2.



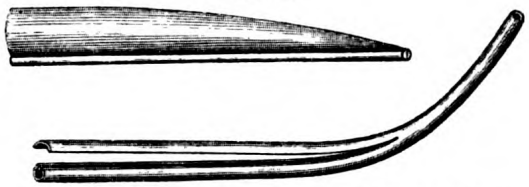
Dovetail Dilator with Forcer between the Blades.

Fig. 3.



Clamps and Handle of Dovetail Dilator.

Fig. 4.



Vesical end of Dovetail Dilator and of Forcer.

Fig. 5.

Fig. 5.—Vesical end of Dovetail Forcer having a different curve superiorly than seen in Figs. 1, 2, and 4. It will be found on trial with a forcer of this curve, that scarcely any appreciable space is formed between its vesical end and the two blades, when it is gliding between them.

a stricture, form a sufficiently perfect passage for the urine, and thereby enable the Surgeon who may require such assistance, to know when the instrument has entered the bladder.

THE FORCER.

The forcer may be made of hollow tubing or of solid metal. The latter is far preferable. It is in shape, vertically, somewhat oval down to the dovetail. The dovetail is formed along its lower edge, and should extend from point to handle. (Figs. 1, 2, 4, and 5, Plate.) This, the male portion of the dovetail, ought to be so shaped and sized as to correspond to the groove and slit of the lower blade, merely allowing of its gliding with facility when being pushed home.

The forcer should not rise to its full diameter too abruptly. The curve seen in Fig. 5 (Plate) seems to me the best form of curve for separating the blades where grasped by the stricture.

The number of forcers to be supplied with the dilator depends upon the requirements of the Surgeon. For instantaneous dilatation to full calibre of canal, of course so many are not necessary as for rapid dilatation in one *séance*.

For strictures in the anterior portion of the urethra, a shorter but *straight* dilator, will be found easier of introduction than the curved instrument.

FOREIGN BODY IN THE AIR-PASSAGE.

By J. MORGAN, F.R.C.S.I.

SURGEON TO MERCER'S HOSPITAL, PROFESSOR OF SURGICAL AND DESCRIPTIVE ANATOMY, R.C.S.I.

MANY and diverse have been the varieties of foreign bodies tabulated as having made their way into the air-passages, such as plum-stones, corn, artificial teeth, coffee-berries, &c. The following case shows another, not, I believe, recorded, which, from its shape and size, is perhaps worth representing.

A strong, healthy boy, fourteen years old, was at play and running about, holding a pig's tooth in his mouth. While laughing it disappeared, when he was immediately seized with a most severe fit of dispnœa. He rushed into a neighbour's room, where everything was done to relieve him, and get rid of the foreign body, by slapping on the back and semi-inversion, without effect. He got relief in about five minutes, but on going down stairs, directly got a fit of coughing, with bloody expectoration. From this time he had tolerable ease, except at night, when he suffered much difficulty of breathing, and as gradually this was becoming worse, he came to hospital on July 15, a fortnight after the occurrence. He now complained of rather severe pain in the chest generally; has sputa pretty freely tinged with blood, and can hardly lie down at night; has a tickling cough, with occasional paroxysms, and a herpetic eruption on lip. On stethoscopic examination, a loud râle was generally observable, taking on the character of almost a stridor over the right supra mammary region, to which region he chiefly refers the pain; both sides of the chest equally resonant. A laryngoscopic examination was made; the rima could be distinctly seen, and also the larynx and trachea, for a considerable distance. No foreign body was discernible, nor excessive vascularity. The boy could not at the time come into hospital, and was ordered a sedative mixture, and cautioned as to his condition. In a few days he called to show himself, as he was not suffering so much at night—the difficulty of breathing being most liable to come on after any exertion. A laryngoscopic examination was again carefully made, with negative result. The stethoscope signs were much the same. The sputa still slightly tinged with blood. The boy returned home, and on August 8, being *thirty-eight days* after the introduction of the body, while dashing his face with cold water when washing, and leaning forward, he suddenly had a violent fit of coughing, and felt himself "jambed up," to use his own expression, when with a few more violent efforts, the tooth was sent out with considerable force. All the distressing symptoms disappeared from that time.

The tooth weighs twelve grains, is *extremely* sharp where broken off from the jaw, and this is the part, probably, which, by direct irritation, caused the bloody sputa so soon after its admission. The shape of the tooth, though long, yet being curved, allowed of the tolerably free passage of air, and equally accounts for the continued irritation.

ON PROGNOSIS IN CHRONIC HEART DISEASE.

By JOHN C. THOROWGOOD, M.D.,

ASSISTANT-PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.

(Continued from page 460.)

SINCE, then, the mere stethoscopic evidence of a murmur is of itself of such small help to us in forming a prognosis in a case of chronic heart disease, we must look for something more, and this will be found in watching the state of the heart's cavities and walls, for a valvular imperfection becomes serious in proportion as it obstructs the circulation and so causes dilatation of cavities and textural change in the substance of the heart itself.

Let us now see what valvular imperfections are most likely to lead to these untoward results, and how the progress for better or worse is to be measured.

Be it understood that our present purpose is to treat of *chronic disease*. *Recent murmurs*, immediately consequent on rheumatic fever, for instance, and due to deposition of lymph on the curtain of a valve, may, as I have observed, vanish entirely in the course of a few weeks, the exuded lymph being absorbed without leading to any shrinking or contracting of the valve; hence it is obvious that recent murmurs must not be placed in the same category, *quoad* prognosis, as chronic ones of several months' standing.

These instances of complete recovery from recent valvular mischief are most often seen in children; they grow, as it were, out of the threatened disease, often in a most remarkable way.

To return now to the confirmed chronic cases of valvular mischief, and let us take first lesions of the aortic valves with systolic murmur.

It is generally held that the prospects of longevity are greater in persons who labour under affections of the aortic than of the mitral valves, and some of the works on physic give aortic obstruction as the least rapidly fatal form of chronic valvular disease. To this commonly received opinion, a high authority, Dr. Peacock, demurs, for he says in his Croonian Lectures* (1865), that while cases of mitral valve disease live on from year to year, such local complications as arise being readily relieved, cases of aortic valve disease rarely derive very material benefit from treatment, and often prove fatal in no long time.

Dr. Chambers is of the same opinion,† holding that the most serious prognosis is for cases where both aortic and mitral valves are diseased; the next worst are those in which the aortic only have suffered; and the most favourable are those where the mitral alone are inefficient.

From my own observations, during four years at Victoria Park Hospital, I have found that patients live a long time with simple disease of the aortic valves, marked by nothing more than a rough systolic murmur. Their own complaints rarely refer directly to the heart, but usually to dyspeptic feelings, possibly cough and some want of strength. They often have pallor of face, and a look that suggests inquiry as to freedom in the use of alcohol.

This aspect on the part of the patient, and the persistence of a certain kind of obstinate dyspepsia, have made me

* Pages 106-107 in the Published Lectures of Dr. Peacock.
† Lecture XXV. 3rd Edition.

almost sure of finding an aortic murmur at the base with the systole, and several cases I see now and then who go about their work, and feel very little discomfort. Tinct. Ferr: c. Ether Chloric usually does more good than anything else, and as the blood becomes richer the murmur becomes less intense. I have known it disappear entirely, though it had all the rough harshness of a true organic murmur.

While, however, many cases of aortic-valve disease go on thus favourably, there is yet some danger, and that from more sources than one. Thus, aortic obstruction, and especially if associate with regurgitation as well, tends to enlarge and elongate the left ventricle, and as this enlarges the mitral valve becomes incompetent, and then come all the evil effects of mitral valve-disease in systemic congestion and dropsy.

This is one danger; but a more startling one is the fact that not very rarely sudden death takes place; and this, not only in cases of very serious defect, but when there is only slight insufficiency, or when the valves are quite competent.

Not many months ago I dismissed a young man, with slight aortic murmur, and no complication further than certainly a feeble first sound, from attending the hospital, as "much relieved," to go for change to friends in the country. He went there, and after tea one evening, died in his chair before any help could reach him. His friends told me there was no post-mortem made.

I believe it was somewhat in this way that a much respected provincial physician died some months ago suddenly in the night, and a post-mortem revealed diseased aortic-valve, and degeneration of the wall of the ventricle, conditions diagnosed during life by the late President of the College of Physicians.

In a patient of my own, two years ago, of a gouty diathesis, there was the slightest evidence in the world of aortic-valve disease, but I felt sure there was a degenerated heart, and at times very severe attacks of angina came on. This man died, as I had expected, almost in an instant (when away from town), but they did not make any examination of the body, so far as I could learn.

Death, in these cases, undoubtedly results from failure of power in the left ventricle; it fails to contract, either because the valvular obstruction is too much for its efforts, or from having itself so far degenerated as to be scarcely a contractile fabric any longer. The formation of a clot and its entanglement on a roughened valve will also stop the action of the heart, even where the ventricle may not be very weak. It has struck me that probably the young man whose case has been referred to as dying suddenly in his chair was cut off in this way.

Given, therefore, a case of aortic-valve disease, with murmur possibly loud, or quite the reverse, we can say nothing of prognosis till we can in a measure speak as to the condition of the ventricle, and the way it overcomes the obstacle presented to it in the damaged valves.

Remembering that enlargement of the heart depress the apex-beat, carrying it even as low as the seventh interspace, or eight rib, we should carefully observe the position of the heart's apex, both for the purpose of noting present condition, as also for watching future progress; and we may just recall to mind that in healthy persons the heart's impulse is visible only at the apex, which beats in the fifth interspace, and somewhat against the sixth rib, about midway between the line of the nipple and the left border of the sternum; the area of visible impulse not exceeding a square inch (Walshe, p. 180.)

A certain amount of pure muscular hypertrophy in the left ventricle need not alarm, as this, in a measure, mitigates the effect of aortic constriction. When there is reason to believe that the elements of the muscular fibres are degenerating and being replaced by fatty or fibrinous matter, then we have an important element to indicate a most unfavourable prognosis; the tendency then is to sudden death, perhaps by rupture of the ventricular wall, more probably by syncope.

Among the signs of this serious change in the structure of the ventricle, are, impulse and sounds both very feeble, second sound, perhaps, indistinct, and action of heart irregular. The pulse may be slow, large, compressible; or it may be rapid, irregular, and jerking, and, in extreme cases, the pulse has been observed to fall as low as 26-30 in a minute, owing to the failure of certain systoles of the heart to communicate a pulsation to the radial artery, the heart itself beating at the rate of 56-60 per minute.

Among general symptoms of bad augury, appear to be paleness or lividity of the face, perspirations, tendency to faint, and, especially, occasional severe attacks of angina. Dyspnœa, vomitings, bad nights, and failure of mental power, are among the earlier signs of the disease.

As a general rule sudden death is more common in aortic valve disease than in mitral disease, and though it does at times occur in cases of mitral disease, with dilated and degenerative ventricles; still, generally, we look for a more gradual dissolution from the congestive effects of the mitral obstruction upon the lungs, and thence on the circulation generally, and, as has been already stated these complications admit of considerable relief by means of well-timed medication, so that the patient may live for many years, and, if young, may hope in some degree to grow out of the disease.

The limits of this paper, oblige me to leave untouched some of the rarer forms of cardiac disease, such as tricuspid valve disease, constriction of the mitral orifice and its murmur, as well as the interesting matters connected with enlargement of the right auricle, lately treated of by Dr. Daldy in a small book.

Enough has been said to show that the danger of valvular diseases, as a class, is not to be estimated by the amount of murmur they entail, but by their effect on the cardiac cavities and general circulation, and while one individual may live and earn his bread while he bears about in his chest a very loud murmur, another with a scarcely audible murmur may have but a few minutes between him and death.

In a few words it may be added, that to justify a favourable prognosis, we must inculcate on the patient the necessity of due precaution. All causes of rheumatism must be kept at a distance, undue exertion avoided, alcohol used in moderation, anæmia watched for, and met by appropriate remedies. In the event of sudden syncope, the horizontal position should be at once adopted, for, by so doing, some amount of strain is taken off from an enfeebled left ventricle.

Hospital Reports.

ST. BARTHOLOMEW'S HOSPITAL.

LAST YEAR'S CHOLERA EPIDEMIC.

ALTHOUGH several of the cases of cholera treated in this hospital last year were reported at the time in our columns, and in those of our contemporaries, it was to be expected that a summary of the whole would appear in the year's volume of "St. Bartholomew's Hospital Reports," to which we draw attention in our Reviews of this week, and such we find is the case. A statement of all the cases admitted has been drawn up with great skill by Dr. Church, and although many pages of this statement take the form of tables, we doubt not they will be attentively studied by many subscribers to the work. As there are also thousands of others who will be deeply interested in them, we propose briefly to mention a few of the facts to be found in this elaborate article.

Altogether, 136 cases are given. The majority are cases of cholera and diarrhœa, but a few were admitted of drunkness, colic, and other diseases. First of all, we have tables of twenty-six cases of cholera in males terminating fatally, and eighteen fatal cases among females. Then follow tables of the recoveries, twenty-three males and fourteen females. These tables shew date, name, age, occupation, abode, premonitory symp-

toms when present, and other particulars of each case. Reference to them shows a mortality of 33·08 per cent., on the admissions to the cholera wards, including cases of neither diarrhœa nor cholera, as mentioned above. Taking only the cases of severe cholera with collapse, the mortality is 54 per cent. A point that has been observed before is again brought out, viz.—that the admissions were more numerous on Mondays and Tuesdays, and this is supposed to arise from the indulgence of the patients on the Sunday, in drinking and other excesses, especially as this feature is more marked among the males.

Premonitory symptoms were carefully inquired for, and were absent in 43·1 per cent. of fatal, and in 21·6 per cent. of non-fatal cases.

The temperature was noted in thirty-one cases, twenty-two of which were fatal. Among those that recovered, it was only found in two instances below 95°. It fell below this point in sixteen of the twenty-two fatal cases.

After recovery from collapse, the urine first past was almost invariably albuminous, with a specific gravity of 1·015 to 1·025, and giving with acid. nit. a deep violet colour, almost approaching to black.

Dr. Church frequently submitted the rice-water evacuations to the microscope, but only once observed traces of intestinal epithelium. He considers the chief microscopic characters to be "large cellular bodies, resembling mucus corpuscles, a quantity of faintly granular material, with numerous bodies resembling free nuclei." He also noticed in thirteen out of twenty-two fatal cases, that the stools, some hours before death, lost the rice-water appearance and became pinkish, looking like "thin gruel mixed with brick-dust." In these stools the microscope generally detected blood corpuscles, and after death extravasations into the intestine were also mostly found. This symptom, as we pointed out in our weekly reports during the epidemic, was, at most of our hospitals, almost invariably followed by death.

A sanguinous vaginal discharge was only once observed, and a rash only five times.

The temperature generally rose shortly before death.

Most of the cases were admitted in the algide stage—that least favourable for the use of drugs. The treatment, as our own reports showed at the time, was very various. Calomel alone or with opium, sulphuric acid, camphor and assafœtida, chlorodyne, bismuth, ammonia, ether, peroxide of hydrogen, mustard emetics, enemas of Condy's fluid, baths, and various other means were resorted to, with results individually unsatisfactory, and the statistics of which have already been named. The hot-bath at this hospital, as almost everywhere else, proved grateful to the patients, but Dr. Church doubts its utility. Friction, sometimes with chloroform, was tried when the cramps were severe.

Saline injections into the veins were tried by Dr. Church in one case, but without success. The case was recorded in our special report on this mode of treatment published last year.

Solid food was withheld for three or four days after the cessation of all symptoms, and, considering the number of relapses that take place, we may well believe that in attention to points of this kind, lies the possibility of lessening the mortality of the diseases. Disinfectants were used—chloride of lime, Condy's fluid, and carbolic acid. Three of the nurses had an attack, but all three recovered. Two patients in the hospital were also seized, both died, and, curiously enough, both were at the time of seizure suffering from cancer, for which they were in the hospital.

In eighteen cases, a post-mortem examination was permitted, and made either by Dr. Church or Dr. Andrew. The notes of these autopsies are given in a tabular form, and are drawn up with terseness, and in a mode permitting of easy comparison. We find that, to a large extent, they corroborate the cases of other observers, and we commend all interested in the subject to this well-stocked storehouse of carefully noted facts.

The opinion of every well-informed physician who has carefully studied a series of cases like these, must be looked for with interest, and is sure to be listened to with respect. We may, therefore, add, that Dr. Church, "without venturing to propound a theory as to the exact means by which the collapsed stage of cholera is produced," draws attention to the similarity of the symptoms set up in certain cases of poisoning by irritants, and asks whether the poison of cholera may not act primarily on the mucous membrane of the stomach and intestines in a manner analogous to these? In support of the idea he would not forget that lesions in the alimentary canal are always found when death occurs, during, or soon after collapse, and he remarks that the relapses that this hypothesis would explain occur after any fresh gastric or intestinal irritation.

ST. GEORGE'S HOSPITAL.

We have availed ourselves of the publication of the St. Bartholomew's Hospital reports to furnish a condensed account of the cases of cholera treated in that hospital last year. Twelve cases were admitted during the same epidemic to St. George's Hospital, and Dr. Thompson, the Medical Registrar, has given an account of these in the new volume of St. George's Hospital Reports, to which we have directed attention in another column, and from which we gather a few particulars of the most interesting cases.

There were 6 deaths out of the 12 cases of cholera admitted. Four of the patients died the day of admission. One of the fatal cases was complicated with other disease:—

Case 1.—Man, aged 58, brought by a policeman; collapsed; out of work; had diarrhœa several days; death in thirteen hours.

Post-mortem.—Lungs full of black fluid blood; weight, 27½ ozs. Left side of heart contracted and empty; right uncontracted, and contained a decolourised clot; blood universally fluid and thin; mucous membrane of intestines congested with extravasation on surfaces; contained a thick fluid consisting of mucus, and columnar epithelium.

Case 2.—Boy, aged 11. Brought in collapse after four hours' diarrhœa; a dose of cal. and op. given; Battley's sol. opium, ℥ v., by subcutaneous injection, every six hours; convalescent on 11th day.

Case 3.—Female, aged 25. Admitted on fourth day of cramps and pain; rice-water stools; brandy and ice; diarrhœa ceased on sixth day; discharged on 27th.

Case 4.—A woman brought in collapsed after a few hours' illness; no purging nor vomiting; brandy and ammonia were employed; she died in two hours.

Post-mortem.—Blood thick, like treacle; lungs weighed 16 ozs.; posterior part of both were solid; left ventricle partly contracted; right not contracted, and contained a decolourised clot; mucous membrane of small intestines not congested; these contained a pale yellowish fluid, more bile-stained than usual, and with some columnar epithelium.

Case 5.—Thomas G., brought in a state of collapse; had been ill two days; a mustard emetic was given, which acted well; brandy and ammonia ordered afterwards; some sulphurous acid was also given; he died in nine hours.

Post-mortem.—Lungs rather congested at base, posteriorly; blood in pulmonary veins thick like current-jelly; weight of both lungs 40 ozs.; heart not contrated; no clots; blood generally was fluid; in places semi-solid clots, but nowhere firm coagulation; small intestines congested, and contained yellowish fluid, and in that granular matter and epithelial cells.

Case 6.—A man, aged 37, taken in in collapse after one day's illness of purging and vomiting; brandy, ice, and calomel were prescribed; died in eight hours, the purging having ceased four hours previously; lungs 30½ ozs., and were congested; pulmonary arteries contained viscid dark blood, but no clot; left ventricle contracted; right flaccid with small clot; intestines very vascular and full of thick fluid containing epithelium cells.

Case 7.—A girl of 15, brought in cold, sick, and purged; stools like pea-soup; only seized same day; treated with brandy, ammonia, and saline; convalescent on 5th day. On the 6th erythema over the arms, in solitary maculæ about one line in diameter, round, rose-coloured, and in places elevated like articaria. This rash only lasted two days.

Of the other cases of cholera nothing noteworthy is recorded. One of them seems to have been recovering when admitted, and had no vomiting nor purging while he remained in the hospital.

We have selected the subject of cholera first, but we find in the medical and surgical reports so many other interesting cases that we shall probably be tempted to return to this volume at an early date.

THE LONDON HOSPITAL.

ANCHYLOSIS OF BOTH KNEE-JOINTS AFTER TRAUMATIC INFLAMMATION.

Under the care of Mr. HUTCHINSON.

A MAN has, during the last few months, been under Mr. Hutchinson's care, on account of the results of very severe and complicated injuries. Both knee-joints were stiffened, and the left so much bent that he was quite unable to walk. In the right knee the anchylosis appeared to be bony, but in the left it was only fibrous, and by force a little movement might be produced. There were large scars of wounds over both knees.

Mr. Hutchinson's treatment consisted in straightening the left knee forcibly under chloroform, and the use afterwards of an apparatus. It was found quite impossible to move the right knee. The result has been that the man can now get both feet to the ground, and with high-heeled boots and a stick can walk fairly. He expects to be able to earn his living as a sailmaker. In addition to the wounds of the knees, he received, in his accident, a fracture of his clavicle and right radius. The credit of his recovery from these severely complicated injuries belongs to the Poplar Hospital, where he was first admitted. Mr. Hawthorne, the house-surgeon of that institution, supplied to Mr. Hutchinson the following interesting notes as to the case whilst under care there:—

Henry Robinson, aged 36, was admitted on February 27th, 1866, having fallen down a ship's hold. He had a compound fracture of the radius, with dislocation of the ulna, a lacerated wound into the left knee, and another into the right knee-joint under the patella, and fracture of the left clavicle. He had for twelve years been subject to epilepsy, but for nine months previously to the accident had not had an attack. The legs were put on splints, and the radius and ulna were brought into the best condition that they could be, though the deformity was still great. On questioning him some time afterwards, he said that his arm had been previously injured while in Australia, and that it had ever since been in the state of deformity it was in when he was admitted. It may therefore have been only simple fracture of the radius at the place of the previous accident. The clavicle was very much comminuted and bruised. He was very stupid and drowsy, with contracted pupils, and some other symptoms of slight concussion, but when spoken to loudly would answer. About an hour after admission he was seized with an epileptic attack, and this was followed by a succession of others, during which it was quite impossible to keep any dressings on his wounds. He had liq. morph. ℳ xxx. given him, after which the fits seemed to grow less severe, and he passed the night free from them, though he was restless and unquiet.

The wounds were again dressed on the 28th of February, and a long thigh-splint put on the right leg. He could answer questions pretty well, and said he was free from pain.

He went on well till March 18th, when he had rigors and swelling in his right knee.

On the 20th this was opened about an inch from the site of the original wound, and about three ounces of pus were let out. The discharge again got less, and stopped; but had again to be let out on April 22nd.

From this time he went on well, till, at his own request, he was discharged from the hospital on Nov. 16th, 1866.

He had then partial anchylosis of the left knee-joint, but could move it about an inch or inch and a-half backwards and forwards. There was still, however, a good deal of effusion into the joint. The right knee was firmly anchylosed, and any attempt to move it gave him intense pain. The clavicle was firm, but with a very large irregular callus at the seat of injury, and there was a great deal of deformity at the wrist joint, which, however, he said was about the same as it had been previously to his last accident.

MATER MISERICORDIÆ HOSPITAL.

MITRAL AND AORTIC VALVE-DISEASE: HYPERTROPHY OF HEART: ENGORGEMENT OF LIVER, WITH JAUNDICE, AND CONGESTIVE PNEUMONIA: TREATMENT WITH THE AMERICAN WILD CHERRY.

By Dr. HAYDEN.

JOHN W., gunmaker, age 60, was admitted into hospital October 9, 1867. Has been temperate, and has not suffered from rheumatism. About six months prior to admission he experienced for the first time palpitation on going up stairs, and about a month afterwards noticed swelling of the feet.

State on admission.—Face puffed and jaundiced; conjunctivæ of a deep yellow tint; œdema of feet, legs, and thighs—the former of a purple colour, and variegated with superficial capillary engorgement; finger-ends livid; pulse 96, irregular and intermitting; visible pulsation of carotid and radial arteries; liver much enlarged, descending nearly to the umbilicus, firm but smooth to the touch, and tender on pressure; precordial dulness extending horizontally from right of middle line of sternum to one and a-half inch to left of line of nipple; in this latter situation apex-pulsation is felt extending over an area of an inch and a-half in diameter; impulse of heart heaving and irregular; a loud bellows-murmur replaces the first sound at the apex, where second sound is obscure; a soft systolic murmur likewise audible in left back and axilla; over midsternum a systolic bellows-murmur is also heard, and a soft faint murmur occupying the place of the second sound, both the latter being traceable upwards and to the right, as high as the second costal cartilage; urine 1015 s. g., acid, and containing a trace of albumen.

To have a sedative draught consisting of Hoffman's anodyne, ℳ xxx., in an ounce of camphor mixture.

October 11.—℞ Pill hydrarg., fellis bovini, extract. taraxici, aa. gr. xx. ℳ, et divide in pill xii., st. i. bis indies. ℞ Infusi prunus Virginianæ ℥viiss., spirit. ammon. a. ether. chloric. aa. ʒii. ℳ, et sumat coch. mag. ter indies.

19th.—Has had diarrhœa during the last two days; this has been checked by gr. v. doses of Dover's powder after each liquid evacuation. There is less œdema of feet and legs, and puffiness of face has nearly disappeared; pulse strong, and intermitting only at very long intervals.

November 8th.—Since date of last report scrotum and penis became much swollen, and required puncturing; the discharge of serum from the punctures was so copious as to filter through the patient's bed on to the floor. He was entirely free from œdema in these parts for more than a fortnight, but to-day it became necessary to repeat the operation. Three days ago the urine had become reduced in quantity to about half-a-pint in the 24 hours, but under the use of acetate of potash (ʒiii.), and nit. spirit of ether (ʒiv.), in seven and a-half ounces of infusion of the American wild cherry, given in half-ounce doses every third hour, it increased considerably, and now amounts to more than two pints. About the same time the sputa became "rusty-looking," and streaked with blood; the lower half

of the right side became comparatively dull posteriorly, and here a coarse crepitant râle was heard. Dry cupping and mustard poulticing were had recourse to. The expectoration, though still tinged, is less in quantity and lighter in colour, and the physical condition of the right side of chest, both as regards resonance and respiratory phenomena, is much improved. The lower extremities are still congested and œdematous, and latterly the patient has suffered from fits of dyspnœa, coming on suddenly and without provocation, and generally whilst he is in bed.

The features of interest in this case are shortly the following, viz.:—The existence of formidable and double valvular disease of the heart, *not* preceded by rheumatism; jaundice due to simple engorgement, without parenchymatous disease of the liver.

The satisfactory results of treatment with the American wild cherry (*prunus Virginiana*), lately introduced by Dr. Allbutt, of Leeds, as a substitute for digitalis in the treatment of certain forms of disease of the heart.

MITRAL AND AORTIC VALVE DISEASE: HYPERTROPHY OF HEART: ENGORGEMENT OF LIVER: TUBERCULAR SOFTENING IN RIGHT LUNG: OCCASIONAL REMARKABLE RAPIDITY OF PULSE.—BENEFICIAL RESULT OF TREATMENT WITH THE AMERICAN WILD CHERRY.

Owen G——, aged 23, farmer, unmarried, was admitted into the Mater Misericordiæ Hospital, under Dr. Hayden's care, on the 4th September last. Habits temperate; parents both living, and healthy; has two brothers who are likewise healthy; has worked hard, and about eight years since had measles, and two years subsequently an attack of rheumatism after a severe wetting. Shortly afterwards he began to suffer from palpitation, shortness of breath on exertion, and occasional œdema in the feet, terminating in critical diarrhœa, or copious diuresis. At the date of admission there was general anasarca; great dyspnœa and palpitation; orthopnœa; remarkable hebetude of countenance, and horripilation of the head, the hair being of considerable length, and erect like the spines of a hedge-hog; urine passed in moderate quantity, acid, 1025 specific gravity, and free from albumen and sugar; face ruddy and free from lividity; body perspiring freely; pulse visible at wrist, weak, and occasionally intermitting, the intermission being irregular as to period of recurrence; thus, it occurred successively after 6, 8, 9, and 14 beats respectively.

On September 9, it occurred four times in succession after 7, 8, and 9 beats respectively; then once after 32 beats, and next four times successively after 14 beats. Cardiac impulse strong, prolonged, and heaving; precordial dullness extending horizontally from line of nipple to right of middle line of sternum. Vertical extent normal; a loud bellows systolic murmur was heard below the nipple; a systolic basic murmur likewise existed, but less loud than the preceding, and at the ensiform cartilage a murmur similar in rhythm and in tone was heard; no second sound audible anywhere; supra-clavicular fossæ obliterated on both sides, and on right side a distinct pulsation existed in the external jugular vein, synchronous with the cardiac impulse, more distinct during inspiration than expiration, and suppressed by light finger-pressure above the clavicle; chest prominent on both sides, and on right side comparative dulness below the clavicle; all over this side (right) loud râles existed; *decubitus dexter*; respiration puerile on left side; liver much enlarged, descending to within two inches of umbilicus, and tender on pressure; some fluid in peritoneum. Ordered half an ounce, thrice daily, of a mixture consisting of infusion of American wild cherry ℥viiss. and nitrous spirit of ether ℥ss.; an aperient of Rochelle salt (℥ii) in two ounces of infusion, and one drachm of tincture of senna; nutritious diet and a moderate allowance of stimulants.

September 10.—Ten o'clock A.M. Heart acting tumultuously, and at the rate of 198 beats in the minute; no murmur was then audible; respirations 48; body bathed in perspiration. This paroxysm came on without any apparent cause. To have immediately a draught consisting of Hoffman's anodyne ℥ss., Batley's sedative ♈i. and camphor water ℥i.

11th.—Slept rather well last night; pulse 98, regular, and free from intermission.

16th.—Since last report he has had one paroxysm, similar to, but less severe than that of September 10; pulse has since ranged from 96 to 108, and been occasionally free from intermission; the mixture and sedative draught have been continued, and a pill has been given daily consisting of pill hydrarg gr. i. pill rhei. c. sodæ siccatæ. aa. gr. ii. This morning, owing to the existence of pain and tenderness over the liver, one leech was directed to be applied at the epigastrium, and followed by a warm poultice.

17th.—Eleven A.M. Great dyspnœa; respirations 54, and pulse 198; no cardiac murmur distinguishable. To have sedative draught immediately.

18th.—Vertigo, and unpleasant sensations in the head during sleep; pupils contracted; pulse 96, regular, and not intermitting; ℥i. of tincture of hops to be substituted for the opium in draught; otherwise treatment continued.

23rd, 10.45 A.M.—Patient leaning forward in the sitting posture; face flushed, and entire body bathed in perspiration; pulse failing, and not calculable at the wrist; registered by the heart, it was 210 *in the minute*; right exter. jugular vein and tributaries greatly distended. To have sedative draught immediately.

25th.—Passed a good night; pulse 108 and regular; lies chiefly on right side; still there is more œdema of *left* hand and fore-arm than of right; no second sound of heart audible. To have castor oil and tinct. of rhubarb draught.

27th.—A double murmur distinctly audible a little to left of mesial line at midsternum; in course of ascending aorta second sound is ill pronounced and rough; pulse 96, steady and regular; great œdema of left hand and fore-arm. ℥ii. of aromat. spirit of ammonia to be added to mixture.

5th October.—Patient flushed and perspiring; pulse 192; respirations 36; a loud muco-crepitant râle audible beneath right clavicle.

6th.—Pulse 84; paroxysm on yesterday, which came on during sleep, but was of short duration; passed a good night.

8th November, 11 A.M.—Pulse 210 counted by heart; great respiratory distress, and inability to answer questions owing to shortness of breath; respirations 48; face flushed and perspiring; entire chest shaken by the action of the heart, which is fœtal in character, and without distinguishable murmur; troublesome cough and muco-purulent expectoration; gargouillement beneath right clavicle. Repeat draught immediately.

This case which is still under treatment presents many features of interest, which may be thus briefly enumerated:—

The occasional rapidity of the pulse, which exceeded in that respect all my previous experience, but always associated with a paroxysm of cardiac dyspnœa.

The association of tubercular softening with hypertrophy of the heart, a combination very rarely met with.

The *horripilatio capitis*, so characteristic of formidable and advanced cardiac disease associated with paroxysmal angina, but which I have never before seen so strongly and typically marked as in this case.

Lastly, the marked improvement which the case exhibited for several weeks under treatment with the American wild cherry. During this period, extending over more than a month, the patient got out of bed and dressed every day except those on which a paroxysm occurred; walked about the corridor, and took his meals with the other patients. Of course, more than temporary alleviation is not to be expected in a case of so formidable a character; but even this is a great boon to a poor sufferer.

I have tried the prunus Virginiana in several other cases besides these now given, and have found it not only agreeable to the patient, but eminently useful in imparting vigour and regularity of action to a failing heart. It is free from danger given in moderate doses of half an ounce to an ounce of the infusion, which is the form in which I prefer to administer it, and may be combined with other

cardiac tonics, such as ammonia, and likewise with diuretics when required.

MEATH HOSPITAL.

OPERATIONS.

We visited the Meath Hospital on last Wednesday morning (the operating day), and witnessed four operations by Mr. Porter. The first case was that of a man aged 31 years, who had laboured under tight organic stricture of the urethra at its membranous portion for fourteen months. On admission he could not retain his urine for more than an hour and a-half during the day, and it passed from him involuntarily at night. A No. 2 wax bougie was with much difficulty introduced into his bladder. Mr. Porter gradually dilated the stricture previous to the operation, until it was large enough to admit No. 4 wax bougie. He introduced Holt's instrument, and burst the stricture; then, having withdrawn the dilator, he immediately passed a No. 11 silver catheter and drew off the urine. The man did not appear to suffer pain, and only four or five drops of blood followed the bursting. The second case operated on was a large chronic abscess on the back of a patient aged forty years. Its situation was just beneath the man's right scapula, and measured from above downwards, ten inches, and six inches in its transverse diameter. It had existed nine months, and appeared shortly after the patient had suffered from pain in the dorsal region of his spine. Mr. Porter having rendered the most depending portion of the swelling insensible, by pumping on it the spray of a compound anæsthetic fluid recommended by Dr. Richardson, he plunged Chassaignac's trochar and canula into the abscess, and brought the point out four or five inches higher than where it entered. He then passed a piece of drainage tube through the canula, and withdrew the latter, leaving in the tubing, the ends of which he fastened together. The pus was seen to flow slowly through the apertures in the tube. The third operation was amputation of a portion of the right thumb of a man aged fifty, for caries of the bones, the result of neglected posonychia. It was accomplished by a small anterior and posterior flaps. Lastly, Mr. Porter operated on a case of blind external fistula in ano; the patient was aged thirty-five years, and a healthy looking man. We were particularly struck with the ingenious knife used by Mr. Porter (Weiss' Fistula Bistoury) to convert the fistula into a complete one previous to cutting through the sphincter. It is a strong blunt-pointed bistoury, the blade fixed firmly in a handle; when the point has passed through the fistulous track to the bowel, by touching a slide on the back of the knife, a small lancet-shaped point is made to project beyond the blunt extremity about one-eighth of an inch. The instrument may then be easily pushed through the gut, and the fistula thus converted into a complete one. This done, the sharp point is withdrawn, and then the bistoury is again blunt, and the operation may be finished in the usual way.

Reviews.

ST. BARTHOLOMEW'S HOSPITAL REPORTS. Vol. III. London: Longmans.

ST. GEORGE'S HOSPITAL REPORTS. Vol. II. London: Churchills.

The production of a yearly volume by some of our larger hospitals, is coming to be looked upon as a matter of course, and as each contains necessarily a large amount of valuable matter, we are glad to receive them for review, although at the present time we are so overcrowded with matter that we have only space to direct attention to their contents in the order in which they are received. Elaborate criticism would be, in fact, out of place, since we could scarcely do justice to one of these volumes in less than a whole number of our journal. We shall, therefore, confine our remarks to the generalities relating to them.

The first volume on our list as the first that came to hand, consists of twenty-five essays. The second, received within a few days of the first, contains twenty-two essays.

We shall be readily believed when we confess we have not yet fairly waded through either. We have, however, dipped into both, and promise ourselves to return to both again and again.

We notice with pleasure that, in both cases, articles by gentlemen not on the staff of the hospital are inserted. To be sure there is at first sight a sort of reason for a degree of exclusiveness in these productions, yet, as soon as the first notion of a report is superseded and a volume of separate essays is determined upon, there can be no reason for confining them to the officials of the hospital, and the admission of others is likely to contribute to success. It makes the interest greater among those who have been educated at the school. It spurs on some to do their best for the sake of being worthy to rank with their *quondam* teachers, and it may, in some cases, even give new energy to those in office to see others worthily following in their footsteps.

Yet, on the whole, the question may fairly be asked—are these so-called hospital reports called for, and do they fill a useful place in medical literature? It may be rather heterodox just now, when these volumes are multiplying so rapidly, but we certainly incline to answer—no! We cannot see that they occupy any peculiar field that is not cultivated. We understand readily enough the utility of the reports of an hospital strictly speaking, but these generally occupy but a small space comparatively, and the remainder of the volume is filled up with a series of essays which have no relation whatever to the hospital, except that each writer is officially connected with it, or, as it now appears, was educated there; or that the cases on which the articles are founded were treated in its walls. Not that we undervalue the articles themselves. Most of them are of the highest order. How should it be otherwise, when they are written by the leading hospital physicians and surgeons? As a rule, each demands a separate notice, and as this is out of our power to give, we shall only allude to the volumes as a whole, and evince our appreciation by returning to them in separate sections, or making use of their contents from time to time in other departments of our journal. A case related by Mr. Holmes Coote in the St. Bartholomew's, and one by Dr. Ogle in St. George's Reports, have already been given in a briefer and less complete form, by our hospital reporter, and so of some of the others, we may be able to give condensed accounts. If we find the opportunity we shall not fail to use it. Still, as so much solid matter contributed to the progress of medical science, we welcome both volumes.

The only fault we have to find is that the binder was not instructed to cut the edges in either case. St. George's gives us a good cloth cover. St. Bartholomew's only affords paper. As the books are intended to be well-thumbed, attention to these trifles is of considerable importance.

RAILWAYS IN THEIR MEDICAL ASPECTS. By J. Ogden Fletcher, M.D., F.R.C.S. London: Cornish, Oxford-street.

We have been gratified by the perusal of this agreeably-written memoir. Dr. Ogden Fletcher has had a large experience of railway accidents, and has carefully collated it with the experience of other surgeons. He has given much attention to statistics, and he is led to the conclusion that the injurious effects of railways on the health have been grossly exaggerated, if, indeed, they can be said to exist at all. So much has been written in the interest of victims that, for our part, we do not regret to have in a readable form all that can be said on the other side. At times Dr. Ogden Fletcher speaks with a degree of warmth which will not fail to gain for him the reputation of being an advocate, especially as he is himself a "railway doctor," but we must observe that he advances a long array of figures, and those who would invalidate his arguments must attack these, for it cannot be expected that mere general opinions will have the force of statistics.

Dr. Fletcher criticises rather pungently Mr. Erichson's little book on the same subject. Were we expected to offer any comment on a point like this, we should be disposed to say that clinical lectures to pupils may very fairly delineate graphically a few striking cases, without being expected to exhaust the subject. Such, at least, might be the defence put forward. Not

that Mr. Erichson will need any hint from a reviewer. No doubt he could relate a much larger experience than he has detailed in the work in question, and for our part we should be glad to see the account of more cases that have come under that learned Professor's notice.

There is another point we do not like quite to pass over in Dr. Ogden Fletcher's work, and that is the degree of weight to be attached to what is frequently called *moral evidence*. Medical practitioners so constantly detect impositions of various kinds that it is surprising they should not more uniformly suspect it in railway accidents. A motive being always present for exaggeration, we do think that railway advisers are justified in requiring something more tangible than a patient's bare statement before recommending an undisputed settlement. Boards of directors and shareholders have a right to be protected from imposition, and we have known cases of extortion which were little suspected even by those who were paid to detect the deception.

As a suitable paragraph for quotation, we give Dr. Ogden Fletcher's conclusions, and commend his appendix of 175 cases to the study of all who would form a just opinion on the facts:—

"'Railway doctors' are forced, by their experience, to attach very considerable importance to 'moral evidence;' it becomes their duty, without assuming the character of a partisan, to be satisfied:—1st. That the accident, by its nature, was sufficient to produce an injury; 2nd. That the injury complained of was such as *might* have been caused by the accident; 3rd. That the immediate symptoms *are* characteristic of the alleged injury; 4th. That the remote symptoms are such as might follow as consequences of the former; 5th. That these symptoms are not due to any previous or intercurrent disease; 6th. That where the evidence of 1st, 2nd, and 3rd is imperfect or wanting, the 4th may be fairly doubted, unless certain objective symptoms that are pathognomonic of a pathological change are present. In the importance attached to the absence of 'objective symptoms,' and the presence of 'subjective symptoms' alone, railway medical men are, to their credit, somewhat peculiar. I have known, in *courts of law*, the correct use of the *prism*, *ophthalmoscope*, and *thermometer*, characterised as 'railway dodges' of no value, set up to screen their employers from a just liability; 'whilst an alleged *dizzy feeling*, *impaired memory*, and *spinal pains*, *without any character* stated to exist by the victim's medical man, upon the strength of his faith in his patient), to be received as positive evidence of *most serious injury*. It is our misfortune, and not our meet justice, as 'railway doctors,' to have our facts and conclusions ignored, as theories set up to lessen the damages, but not to be believed. We too frequently hear from the bench and bar, that the 'railway doctor's' opinion *was so and so*, but, on the other hand, the opinion of his medical attendant is very different; and not unfrequently the inference is put to the jury, that the opinion of the 'railway doctor' is imperfect or untrue, and biassed by his appointment. Surely, if we are to be charged with being susceptible of corruption, it might be said of all medical men that the wishes of their employers must give a character to their opinions, whether victims or boards of directors, and if so, the acknowledged value given to opinions of men that have had large experience, and made a special study of certain facts, ought to be accorded to railway doctors; at least, to the extent of allowing them to be able to observe facts, and draw correct conclusions with the same degree of accuracy as other medical men that have had far fewer facts to observe, and employed a less critical mode of observation.

"In conclusion, I must say that when I first became connected with a railway company, my early impressions, and the teachings of my masters, led me strongly to the belief that railway casualties were generally, if not always, of the most serious character, and, acting upon this impression, I made certain suggestions as to the desirability of having means for conveyance ready at different parts of the line, to lessen these supposed consequences as much as possible. My suggestions were acted upon; but, hitherto, after several years, they have not been required. My gradually increasing experience first made me doubt the correctness of my foregone conclusions. Finding, as I did, employés and passengers alike receiving injuries of various kinds and degrees, recovering without developing the train of symptoms I expected, I concluded that the most proper and satisfactory mode of arriving at an approach to the true nature of the accidents, would be to enquire into the state of a number of cases, at considerable intervals of time after the accidents. With this end in view, and a desire to ascertain the truth, I began my enquiry into the cases recorded in the appendix.

"The labour, although considerable, has been lightened by the kind and cordial assistance I have received from many professional friends, and the frank courtesy with which several railway companies have facilitated my obtaining the required information."

CURRENT LITERATURE.

SEVERAL of the English *Introductory Addresses* have been published by their authors. Of the majority of these we have given abstracts, so that our readers will not need any notice of them. Of those which we were unable to report at the time, one of the most able was that at the Sheffield School, delivered by Mr. Wm. Baker, F.C.S., the Lecturer on Chemistry, and which now appears in pamphlet form from the press of Messrs Pawson and Brailsford of Sheffield. We have perused the lecture with much pleasure, particularly those portions relating to the atmosphere we are obliged to breathe in our houses and in towns, and the progress that has been made in sanitary science. There are also some highly interesting facts mentioned about the state of Sheffield. Altogether the address is well worth publishing in its present form. We give an extract, by way of specimen, of the lecturer's style:—

"There are many cultivators of science, and discoveries are daily made of direct application to surgical practice. It is incumbent, then, on the student of medicine to prepare himself to appreciate and to test new appliances and new thoughts. Before the study of matter controlled by vital force must necessarily come that of its general properties, as taught in our manuals of natural philosophy. Nor must we lose sight of the fact that some of these are yet imperfectly known and understood. Let me illustrate this remark by a reference to one of the last discoveries to be recorded in the chapter on molecular force, and which has opened our eyes to the almost incredible forces residing in the pores of substances as dense as platinum and iron. The researches of the Master of the Mint have shown that not only do gases diffuse through heated metals, but that they may be absorbed within the pores of the metal, in some cases to the extent of several times their volume. Following on this discovery we have lately seen that hydrogen was burned in the theatre of the London institution which had been brought down from celestial space, shut up in a piece of meteoric iron. Here is an apparent affinity of inert metal towards gases, which may be compared to chemical affinity in its power, and which furnishes a peculiar example of those obscure phenomena which puzzle us in the border land of chemistry and physics. But if a simple element possesses such properties it is more than probable that the complex substances which compose our body should exercise powers of occlusion as well as osmosis, and may, indeed, enjoy a select affinity for certain gases to which their surfaces are exposed. A piece of white of egg absorbs ammoniacal gas with almost the same rapidity as water does. This displays, in a striking manner, this extraordinary physical property of some colloid substances. That this body in its soluble state is one of the chief constituents of the blood, is full of suggestions to the chemical physiologist. I heartily trust that these discoveries may lead to greater attention being given to the state of the unseen gaseous medium which surrounds us, upon which the conditions of a healthy life so largely depend."

On the Nature and Affinities of Tubercle, being the Gulstonian Lectures, 1867, by Reginald Southey, M.D., Oxon. F.R.C.P., &c. London: Longmans and Co. An abstract of these lectures appeared in our columns when they were delivered before the Royal College of Physicians of London. Under these circumstances we shall not be expected to enter into an analysis of them, all our readers having so lately had the opportunity of exercising their judgment in reference to them. It only remains, then, for us to chronicle their publication in a complete form in an elegant volume. A little change in appearance is very fairly made, Dr. Southey having divided his lectures into chapters, and thus afforded his readers "better appointed breathing spaces" than is possible when so large a subject has to be crammed into three lectures. We have, accordingly, eight chapters carefully arranged, preceded by a table of contents, and interspersed with references to authorities. No doubt many will at once possess themselves of this latest exposition of the views of Virchow, by one of his most admiring English disciples.

An Essay on the Maintenance of Health, by Henry Lowndes, Surgeon to the Liverpool Northern Hospital. London: J

Churchill and Sons. Liverpool: Holden. This little essay seems to be based upon an address to the Liverpool Medical Institution, at the opening of the session 1865-6. In it Mr. Lowndes discourses very pleasantly of diet, of the care of the skin, bathing and ablutions, of exercise, of sleep, of the maintenance of a healthy frame of mind, of rest, &c. We have been particularly struck with the happy style in which teetotalism is disposed of, the author being in this, as in most other things, an advocate of the "golden mean." He claims for himself the merit of brevity. We are ready to acknowledge that this is by no means the sole recommendation of his performance. We should be glad to know that it had a wide circulation, for, while it contains many hints that would be profitable to all concerned for the maintenance of their health, it would not fail to afford a pleasant hour's reading to any educated mind.

On Hay Asthma, and the Affection termed Hay Fever, by William Pirrie, M.D. London: J. Churchill and Sons. This little work contains the substance of some articles contributed to one of our contemporaries, and now revised and issued in a well-printed, and well-bound, small 8vo volume. The author recognises two forms of the malady to which he draws attention. These may be called the catarrhal and the febrile. He would seem to think that these affections are more common than is generally supposed; and, perhaps, a good many cases may be classed by some observers under the general term asthma, which is becoming used as a name for everything in which dyspnœa is prominent. There are some cases related in which the attacks had recurred for several years in succession under similar circumstances. The great point would seem to be to avoid the exciting cause. This Dr. Pirrie thinks is sometimes merely *solar* heat.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 20, 1867.

EDITORIAL AMENITIES.

THE correspondence which we publish to-day, at the request of the editor of the "Dublin Quarterly Journal of Medical Science," between himself and Dr. SINCLAIR, is hardly less interesting to the profession than to ourselves, and as the course adopted by our brother editor has been freely canvassed in medical circles, and more or less misunderstood, it affords us pleasure to be able to place the matter in its true light.

The facts are simply these—some months since a communication entitled—

"Observations on the Comparative Advantages of affording Obstetric Attendance on Poor Women in Lying-in Hospitals and in their own Houses. By Denis Phelan, M.R.C.S.London, late P.L. Medical and General Inspector."

was published in the columns of the "Quarterly," and it went substantially to prove, on a well-known statistical authority, that intern hospital treatment (principally represented in Dublin by the Rotundo Lying-in Hospital) was greatly less satisfactory than the combined system of home and hospital attendance adopted to a large extent at the Coombe Hospital. To this communication a reply was written with the following title—

"Extern Maternities and Lying-in Hospitals. Some observations on a Paper which appeared in the eighty-fifth number of the 'Dublin Quarterly Journal of Medical Science.' By Edward B. Sinclair, A.M., M.D.Univ.Dub., Fellow of the King and Queen's College of Physicians in Ireland; King's Professor of Midwifery in the School of Physic, Trinity College, Dublin; ex-Assistant-Physician to the Dublin Lying-in Hospital, &c., &c."

and was forwarded to the "Quarterly" for publication. In the words of the editor—

"It was with extreme regret that I felt compelled to decline publishing Dr. Sinclair's paper, but as there were many matters in the manuscript when it was submitted to me utterly irrelevant to the subject, and, in my opinion, calculated to prevent the fair discussion of an important social and scientific question, by the introduction of angry and embittered personal feelings, I had no alternative."

On the refusal to accede space for his observations in the "Quarterly," Dr. Sinclair printed them in pamphlet form, and circulated them freely with the following notice—

"Notice.—These observations were refused admission into the 'Dublin Quarterly Journal of Medical Science,' I therefore print them in their present form.—E. B. S."

We can go no further in our recapitulation without stating, and we do so with an apology to Dr. Kidd for transferring such an insinuation to our columns, that the construction has been placed upon his act that, being officially connected with the Coombe Hospital, he published Mr. Phelan's statement, favourable to that institution, and refused the reply. The editor exercised his undoubted privilege, and declined to insert the paper, pointing out at the same time the causes of his refusal, and offering to insert it if they were removed. The author declined to give his paper for publication unless it was printed exactly as he wrote it.

Now, the first idea which occurs to an outsider on reading the two papers is, that whether Mr. PHELAN intended his paper to be a direct attack on the Rotundo Hospital or not, Dr. SINCLAIR has put the controversy before us as a battle between the Coombe and the Rotundo Hospitals, involving, as it does, of necessity, the vital question—which of these two institutions ought to be supported by public and private money in preference to the other? No one will impute the intention to do this to Dr. SINCLAIR, but his pamphlet will read in this way; and only in a secondary sense will it be held to discuss the important question to which Dr. KIDD was anxious to confine it.

Why did the Editor of the "Dublin Quarterly Journal" refuse to insert Dr. SINCLAIR'S communication? The answer from that gentleman is—Because he considered certain passages in it, in its present form, and other statements removed from it *since* he declined to print it, were calculated to be offensive to Mr. PHELAN, and unnecessary to the argument.

Is the pamphlet before us an actual copy of the MS. sent to Dr. KIDD? Dr. SINCLAIR in his prefatory remark implies that it is. Yet, in letter No. 8, he says the printed paper contains all the MS., "but the assertion that Mr. P. was not a registered practitioner." We leave our readers to judge whether the paper refused by Dr. KIDD for containing, *inter alia*, the assertion above-mentioned is the same as the pamphlet now before us, which does *not* contain that assertion, and which not only does not give us the slightest intimation that anything has been omitted, but leaves us to infer that one is an exact copy of the other. It was in consequence of its containing that statement and others conceived in a similar spirit, that the editor, having previously afforded an opportunity for amendment, declined the communication, and it is for the public to judge whether the grounds were sufficient. In our opinion they were so, and the editor of the "Dublin Quarterly Journal" was justified in the course he adopted. The character of the journal he conducts is, we think, a full justification. We ourselves should have regarded Dr. SINCLAIR's strictures severe, but by no means fatal to his claim for publicity. In point of fact, we need hardly remind our readers that we have dealt with Mr. PHELAN in our columns with as great an amount of severity. But the "Quarterly" is a periodical devoted simply to the discussion of abstract scientific matters, and anything not strictly relevant to them, the editor is bound, in duty to his readers, to expunge. Unless it be for the purpose of discrediting Mr. PHELAN as an authority, and we cannot trace in the observations such an effect, the remarks to which Dr. KIDD took exception were not essential to the argument, and, therefore, were reasonably objected to.

As regards the tone of the remarks personal to Mr. PHELAN, which are printed, we regret that Dr. SINCLAIR thought them necessary to his argument. We don't think they are; and, further, we think they go a great way to weaken it; for many who prefer Dr. KIDD's *suaviter in modo* to Dr. SINCLAIR's *fortiter in re*, will feel prejudiced at once against the otherwise sound argument which the latter uses, and will, therefore, give little heed to it.

We fully agree with the conclusions to which Dr. SINCLAIR has arrived in so far as the comparative mortality and health of lying-in hospitals and extern maternities are concerned. His case is strong, well argued and conclusive; and although a great deal may be said on both sides of this, as of all other questions, yet we think Mr. PHELAN has not made out so good a case for his side—the superior value of extern maternities—as Dr. SINCLAIR has fairly established for the contrary and most generally-received opinion. Moreover, we may note that Dr. KIDD, in his letter to us, states that he also agrees with Dr. SINCLAIR "that the statistics of an external maternity can never be sufficiently accurate to allow of their being compared with those of a lying-in hospital."

In the matter of quotations, Dr. SINCLAIR proves his case, and that incontestably, by giving Mr. PHELAN's quotations of certain extracts, and putting beside them the same extracts as they appear in the book from which they were taken. On the whole question we say, that admitting Dr. KIDD's basis, the exclusion of personalities from the "Quarterly Journal," he had no alternative but to refuse Dr. SINCLAIR's paper. Further, we venture to remark, with all respect for Dr. SINCLAIR, that in exercising his undoubted right to publish the paper himself, he would have done well to have stated that it was not exactly the same as it stood in the MS.; and when he thought well to announce to the profession the fact of its refusal by the editor of the "Quarterly," it would have been fair and considerate to have added the reason why.

Notes on Current Topics.

PASCAL AND NEWTON.

THE French Academy of Science has come to the same conclusion as our own British Association, that the letters brought forward by M. Chasles, and which were to transfer some of Newton's discoveries to Pascal, are forgeries. The facts will be found in the report of the British Association's meeting at Dundee, in the MEDICAL PRESS AND CIRCULAR, for August and September.

Sir David Brewster has come to the conclusion that the forger was one Desmaizeaux, who resided in England between 1692 and 1745, was a Fellow of the Royal Society, and contributor to the *General Dictionary*, as well as author of *Recueil de Diverses Piéces*, &c., *par* Leibnitz, *Clark and Newton*, in which portions of the forged letters are to be traced. Sir David concludes that he spent the last five years of his life in this fabrication, but that his crime had no other object than to provide for his family, as he seems to have been in complete poverty, and on one occasion wrote to a nobleman that he was reduced to a pension of £40 per annum.

LONDON STREET TRAFFIC.

THERE has always been a jealousy of the costermongers and street traders existing in the minds of the shopkeepers, amounting almost to animosity, and leading to the adoption of all means to intercept their out-door traffic. Hitherto the outsiders have stood their ground against their would-be extirpators, until at length Parliament coming in—we should hope undesignedly—the weakest are vanquished, and the most powerful left masters of the field. This peculiar feature in the operation of the Metropolitan Street Act has already excited attention, and we trust that Parliament when it meets will not be insensible to the hardship which has been inflicted by its late act. Already there are difficulties arising from commercial depression which will affect the poorer class in no ordinary degree; why should we add to them by depriving 50,000 hard working men of the means of gaining a living? What have they done that their rights should be denied them in so arbitrary a manner? And what have those thousands done who look to them for the supply of articles which, with their slender means, they cannot afford to purchase elsewhere? What can justify us in interfering with

arrangements so important to so large and so needy a class? Are we not by such legislation running the risk—nay, almost facing the certainty, of increasing the ranks of felony and crime? It certainly behoves our authorities, both parliamentary and civic, to look fairly at these things, and not to enforce a law which seems pregnant with so much partiality and mischief.

A WINTER NIGHT'S TALE.

THE approach of winter, heralded by fierce storms and other catastrophes, is again signalised by the tale of the poor of London, who are already in a condition of penury. The cry of want has again gone forth, and should the winter be severe, may once more rise to an agonizing pitch. Medical men know much of the misery and poverty which are hidden from other eyes, and feel intense interest in their suffering fellow-creatures, and not unfrequently we are the first to claim for the poor the help of the rich. In the Isle of Dogs there is at the present time an amount of suffering truly awful. The medical officer of one district has made an appeal on behalf of those under his charge, which is sure to be responded to liberally, yet this is only a small part of the poverty and distress we know to be falling upon large portions of the great and wealthy metropolis. Wherever the need exists the doctor is to be seen ministering as he can. Let the rich from their plenty contribute as they can too. No doubt they are willing as ever, but there is no time to lose. The doctor will be the best almoner of those who do not see the distress and yet are willing to help.

THE PUBLIC HEALTH.

THE annual rate of mortality in the week ending Nov. 9, was at the rate of 23 per 1000 persons living in the large towns included in the Registrar General's return. In London the rate was 20 per 1000; in Edinburgh 27; in Dublin 25; in Bristol 20; in Birmingham 23; in Liverpool 26; in Manchester 26; in Salford 27; in Sheffield 24; in Leeds 24; in Hull 28; in Newcastle-on-Tyne 29; in Glasgow 27. Again the mortality of London is below the average, the total number of deaths being 1195, which is less by 222 than the estimated number. Zymotic diseases were below the average, being 254 instead of 347. There were 9 deaths from smallpox; 39 from scarlatina; 27 from whooping-cough; 42 from typhus; 21 from diarrhœa and 37 from measles. Of diseases of the chest we notice 148 deaths from phthisis; 154 from bronchitis; 82 from pneumonia, and 57 from heart disease.

It is mentioned in the return that the present registration system has been in operation for 30 years, and that a legal certificate of birth, marriage, or death during that period can be obtained at Somerset House.

HEALTH OF SCOTLAND.

IN the eight principal towns of Scotland, with an aggregate population probably about 950,000, 1969 deaths were registered in the month of October. Allowing for increase of population this number is 97 under the average of the month for the last ten years, and 275 under that of the last four years. No less than 45 per cent. were deaths of children under five years of age. The zymotic (epidemic and contagious) diseases caused one-fourth of the mortality of the month; and this rate was exceeded in Paisley from the prevalence of whooping-cough, and in Greenock from that of typhus. Typhus caused 115 deaths, or 5·8 per cent. of the total mortality in the eight towns; scarlatina 112 deaths, or 5·7 per cent. of the mortality. The deaths from inflammatory affections of the respiratory organs numbered 329, those from consumption 224, from whooping-cough 73, from croup 36. Diarrhœa caused 62 deaths; cholera 4; small-pox 3. 79 deaths were ascribed to violent causes—29 by fractures, 14 by drowning, 4 by suicide, 2 by intemperance; and there were also two deaths from delirium tremens. Seven deaths were registered of persons who passed their 90th year, the oldest being a coal miner, who was 101 years of age. The births registered in the month were 3365, a higher number than has been registered in any October since civil registration began in 1857. The marriages were 577, which is 77 less than in October last year, allowing for increase of population, and 40 less than the ten years' average. In meteorological circumstances the month was not far from the average, but a few cold days near the commencement caused the mean temperature to be only 47 degrees, being 0·8 below the average. The greatest depth of rain was at Greenock, 7·82 in., the least at Edinburgh, 1·80 in.; the greatest number of days with rain was at Glasgow, 26, and the least at Dundee, 14. The mean direction of the wind was W.S.W.

HEALTH OF SOLDIERS' WIVES.

IT appears that a certain number of men in every regiment in the army are allowed to marry, and consequently their wives are acknowledged by the authorities, and are entitled to certain advantages. Hitherto there have been no returns of the sickness and mortality which has occurred amongst them, which has arisen from the difficulties in the way of coming to a correct estimate. Those difficulties spring from several causes which we need not specify. In the last reports of the Army Medical Department there is a paper on this subject accompanied by tables of statistics referring both to the United Kingdom, and the different stations abroad. These tables extend over the five years preceding 1865. During those five years the number in the United Kingdom was 39,953, out of which there were 16,001 cases of sickness, and 294 deaths. Gibraltar and Malta, the numbers were, 4177; cases, 1974; deaths, 60. Canada, Nova Scotia, and Newfoundland, out of 8643 there were 4721 cases, and 65 deaths. St. Helena and Cape of Good Hope, the numbers were, 2203; the cases of sickness, 1605, and the deaths, 13. In New Zealand the numbers were nearly the same, but the deaths more. In the West Indies and the Mauritius the numbers were nearly the same, but the admissions and deaths were nearly twice as many in the latter place, while in India, with a total of 18,821, there were, 22,145 cases, and 761 deaths. By far the greatest proportion of these cases of sickness occur under the head of miasmatic diseases at home and throughout the stations. The next highest number everywhere except New Zealand, are cases of parturition and abortion, while diseases of the respiratory system show also a large amount of cases in every station.

The number per 1000 of admissions and deaths is also given, both of the women and the men, from which it appears that, on the whole, the rate of sickness is much lower among the former than the latter. This arises, the report states, from two obvious causes. The first is, that the men apply for medical advice in trivial cases in which the women very often do not; and the second is, that they

are "exempt from venereal diseases, by which a heavy proportion of the admissions of the men into hospitals is caused."

A PUBLIC PARK FOR PORTSMOUTH.

We are glad to hear that the inhabitants of Portsmouth, Portsea, and Landport, who have long felt the need of some open space for recreation and exercise, have had granted to them, "on payment of the rent consistent with the precedents in similar cases," a portion of the glacis before the old lines of fortifications, consisting of some fifty acres of meadow land, in which there are many large and fine elm trees to afford shade and increase the beauty of the park that will be constructed. Improvements of this kind are of the greatest importance, and ought everywhere to be encouraged. A new breathing space for some 100,000 inhabitants of these towns cannot but contribute to the public health. It is almost a wonder that a want of this kind has not been supplied before.

THE ATMOSPHERE OF THE UNDERGROUND RAILWAY.

The *London Review* asks the analysts, from whom emanated the report on the purity of the air, published in our last, whether they are prepared to assert that the air examined by them was taken from the tunnels before or after the glazed gratings at certain of the stations had been broken open. If the air analyzed were collected subsequently to the throwing open several thousand square feet of the tunnels, it by no means represents the atmosphere which was reported to have been so injurious. We trust that these able chemists will afford us an unequivocal statement on this point.

THE MEDICAL ACT.

It appears that the Home Secretary has not, since the deputation of the council laid their views before him in last May, communicated to it in any way as he then promised the intentions of Government in respect of the amendment of the Medical Act. The Executive Committee of the Council, which met on Tuesday the 12th, deputed the President, Dr. Acland, and others, to solicit a further interview with the Home Secretary, and, if possible, obtain from him a promise to introduce the Bill as a Government measure next session.

Meanwhile, the University of Melbourne has protested against the provision inserted in the Bill on Mr. Paget's motion, that twelve months residence in Great Britain be required from holders of Colonial degrees before registration.

PUBLIC OPINION ON MEDICAL CORONERS.

It is on the commonest sense of propriety and justice that the principle is based that for the insertion of anonymous correspondence the editor of a journal is responsible only secondarily to the subject matter of his leaders. It ought to be unnecessary for us to remind the editor of a journal so deservedly esteemed for its impartiality as is *Public Opinion*, to this axiom, which seems to require the editorial appreciation and application to a large proportion of its correspondence, to the faults of which the editor cannot be insensible. With the utmost desire not to deal with the matter from a prejudiced point of view, we cannot but believe that good taste will endorse our disapprobation of a communication admitted to the columns of *Public Opinion* of the 16th inst. In the interest of the profession we confer the immortality of roguish stupidity on the author of the letter, who betrays his identity as one of the psychological curiosities whose lunacy takes the form of medico-mania, and the championship of small-pox. These delusions, if privately indulged, are as innocuous as any other monomania not absolutely dangerous; but if they receive the editorial *fiat* they attain at least the dignity of a bore. Surely the editor does not consider the following extracts, which we quote without further comment, a genuine exposition of public opinion:—

"Every nerve is now strained by the medical profession to get all coronerships into its grasp, as *one of the means by which the public may be drugooned into submission to its sway*. Yet it is incompatible with a calm administration of justice that judicial posts should be held by men more or less tinctured with ephemeral theories and trade instincts.

"There are certainly points of analogy between physician and inquisition; both work upon ignoble mortal fears (ladies dread disfigurement, hence compulsory vaccination); both loudly profess philanthropy; both use female confessions as a lever; both hate to have their acts publicly discussed; both advocate compulsion against heretics."

THE MEDICAL STUDENTS' JOURNAL.

We hear that a meeting of students has been called to carry into effect a suggestion emanating from University College Hospital, for the publication of a periodical, specially devoted to interests of the medical students of London, and edited and supported by that numerous class. There is, undoubtedly, an abundant constituency for such a journal, but we fear that the interests and principles to be advocated are not sufficiently defined, and the various classes of students too widely separated to promise a successful or popular career.

DR. RICHARDSON'S LECTURES.

On Tuesday, November 12, Dr. Richardson gave the second of his series of lectures on Experimental and Practical Medicine, to a crowded audience, comprising some of the most eminent members of the profession.

After alluding to the promise of progress in general therapeutics, held out by the study of the action of anæsthetics, the lecturer called attention to a table comprising a long series of bodies varying in chemical composition, but all of whose vapours possessed, more or less, narcotizing power. Nitrous oxide gas (N_2O) stood at the top of the list, and turpentine at the bottom, between these being included all the anæsthetics with which we are as yet acquainted.

The chemical and physiological properties of several bodies in the series were demonstrated experimentally; the condition of the heart and lungs in creatures killed by carbonic oxide, chloride of ethyl, bichloride of methylene, hydride of capryl, and a mixture of chloroform with bichloride of methylene, was shown by recent dissections of the animals dexterously performed by Dr. Sedgwick.

The rapidity with which anæsthesia was produced by these various bodies, was shown in the instance of pigeons, and for ease and rapidity combined, nothing that was tried seemed to equal the bichloride of methylene.

THE NAVAL MEDICAL SERVICE.

The recent regulations which have made twenty-eight years of age the maximum for candidature, and have abrogated the necessity for a proficiency in Latin, besides conceding many minor privilges to junior officers, seem to have

told already upon the demand for admission to the service. The examinations were held the week before last, and twelve candidates passed, and were admitted as assistant-surgeons. This number is very large in comparison to the scanty list of applicants, published within the last few years.

SIR JOSEPH OLLIFFE, M.D.

THE King and Queen's College of Physicians in Ireland have just conferred the unusual compliment of the Honorary Fellowship of their College on Sir Joseph Olliffe, an honour which could not have been better bestowed, Sir Joseph being a distinguished member of the Profession, in every possible way worthy of that compliment. It is almost unnecessary for us to state that Sir Joseph Olliffe, who was born in Cork, commenced practice several years since in Paris, where, by his perfect knowledge of his profession, his urbanity of manner, and his unremitting attention to his patients, he soon became one of the leading physicians amongst the English inhabitants of, and visitors to, Paris, a position which he still so ably fills. In addition to having the honour of knighthood conferred on him some years ago, Sir Joseph was appointed physician to the British Embassy. Lately, the Emperor of the French named Sir Joseph Olliffe as one of the Commissioners of the Medical Department of the great International Exhibition, Baron Larrey acting as president of that important commission, and Sir Joseph Olliffe as vice-president.

Few Irish medical men leave Paris without having enjoyed Sir Joseph Olliffe's profuse hospitality, at his mansion in the Rue St. Florentin; and we trust he shall be long spared to enjoy the additional honour lately conferred on him, and to us as a countryman of whom we are justly proud.

THE SURGICAL SOCIETY OF IRELAND.

THE opening meeting of the Society is fixed for the 6th of December. At the meeting of the Council on Thursday last, the following officers were elected for the ensuing year:—

President—Robert Adams. *Vice-President*—George H. Porter. *Council*—William Hargrave, Charles Benson, Christopher Fleming, M. Harry Stapleton, Wm. Jameson, Richard G. H. Butcher, Jolliffe Tufnell, Hans Irvine, Geo. H. Porter, Thomas Byrne, Philip Bevan, B. Wills Richardson, Maurice H. Collis, James H. Wharton, Jas. S. Hughes, Rawdon Macnamara, Edward D. Mapother, Wm. Colles, Edward Hamilton, Archibald Jacob, Humphrey Minchin.

The vacancies caused by the resignation of Dr. Arthur Jacob and the death of Dr. Awley P. Banon, were filled by the election of Dr. Archibald H. Jacob and Dr. Humphrey Minchin.

THE DUBLIN OBSTETRICAL SOCIETY.

THE President, Dr. Sawyer, Professor of Midwifery in the Royal College of Surgeons, entertained the members of the Society, and the leading professional men of Dublin, at a conversazione last week. The rooms were crowded by a large assemblage, in which surgery and physic were alike represented, obstetricity being, naturally, the predominant speciality.

The Society held its opening meeting on Saturday evening, the 16th, at the Rotundo. The report having been read, the outgoing President delivered his valedictory address, and the subsequent resolutions were spoken to, amongst others by the Right Hon. the Lord Mayor; the President of the Royal College of Surgeons; Dr. Denham, the Master of the Lying-in Hospital, and Dr. Beatty. On the declaration of the ballot the following officers were declared elected for the ensuing session:—

President.—Dr. S. L. Hardy. *Vice-Presidents*.—Dr. George Johnson, Dr. Henry Kennedy. *Council*.—Dr. Beatty, Dr. Denham, Dr. Churchill, Dr. Cronyn, Dr. McClintock.

THE MEDICAL ADVISERS OF THE DUBLIN CORONERS.

WE have reason to believe that the appointment by the City Corporation, of the two sons of the coroners as permanent medical witnesses in the inquest courts, and our explanation of the manifest intention of the Acts, under which medical evidence is provided, have received the attention of the authorities, and it is probable that steps will be taken to obtain a reversal of the election. The matter being one in which the public wish coincides with the interest of the profession, is one which calls for the anxious attention of the Irish Medical Association. The especial qualifications of the medical man to pronounce in such a matter, cannot be so easily ignored to clear the way for the exercise of such audacious nepotism, even when it is perpetrated by the stump agitators, under whose mal-administration the city groans.

THE Editor of the Journal of the Irish Medical Association solicits from the Members of the Association, and Poor-law Medical Officers throughout Ireland, such information, either confidential or in the form of newspaper reports, as may be considered of interest to the members of the Association, and will receive with pleasure the expression of the views of members either privately or for publication as correspondence. The first number of the Journal will be issued on the 4th of December.

THE LIMERICK UNION—DR. O'SULLIVAN.

THE issue between the Guardians of the Limerick Union and their Resident Medical Officer, to which we have devoted much space some months since, is about to come before the public again. The circumstance of Dr. O'Sullivan having been dismissd by a very narrow majority for alleged disrespect to the Sisters of Mercy in charge of the Workhouse Hospital will be familiar to our readers. He has now served the Board of Guardians with notice of action for the recovery of £210 for salary since his suspension, and £1000 damages for alleged wrongful dismissal. We do not regret that the controversy is likely to be taken out of the hands of any clique of guardians, and decided on interests superior to religious or personal prejudices.

THE WOUNDED POLICEMAN AT MERCER'S HOSPITAL.

WE learn that the bullet was on Saturday last extracted from this unfortunate man. It was removed about the level of the last rib. It must have struck the button on his coat, for it carried with it a piece of the shank and a fragment of the cloth. The most alarming symptom has been the passage of red blood per rectum, but as the foreign body has been got rid of a more favourable aspect of the case is presented.

THE BALLINAKILL DISPENSARY.

THE scandalous proceedings at this dispensary have at last culminated in the Court of Chancery, and the party who were the authors of the disreputable attempt at coercion have been properly condemned. It will be remembered that on the death of the late Dr. Walsh the committee met, and in spite of the utmost terrorism exercised by a religious clique, and the avowed use of every ecclesiastical influence, appointed Dr. Carey, in opposition to Dr. Fitzpatrick, the elect of the extreme religionists, and the nominee of the priest of the parish. The party—determined that whether the poor died or not, they should not live by the ministration of Dr. Carey—absolutely seized upon the dispensary-house, and installed Dr. Fitzpatrick, who has since exercised the functions of medical officer, while Dr. Carey attended *pro forma*. The majority of the guardians have applied to the Chancellor for an injunction.

ASSOCIATION FOR PROMOTING THE EXTENSION OF THE CONTAGIOUS DISEASES ACT OF 1866 TO THE CIVIL POPULATION OF THE UNITED KINGDOM.

A MEETING was held in London on the 11th inst. to found a new association for preventing, as far as possible, the spread of venereal disease. A large number of influential medical men and others, among whom were present—Dr. Pollock (in the chair), Mr. James Lane, Mr. Holmes Coote, Churchwarden Wakeling, Rev. E. Wyatt Edgell, Mr. Erasmus Wilson, Mr. Gascoyen, Dr. Fox, Mr. Victor de Meric, and Dr. Francis Oppert. The object of the association was clearly stated to be the diminution of venereal disease, and of the enormous evil its wide spread among all classes produces. It proposes to do this by obtaining adequate accommodation for women, who are the principal diffusers of these diseases, and to arm the police with power to compel any notorious prostitute to submit to a medical examination, and enter a hospital till cured. To each hospital the association would add a refuge for the inmates desirous to abandon their vicious life. These are the main provisions of the Contagious Diseases Act, 1864, which has already effected great improvement in the health of the soldiers and sailors on those stations where the act is enforced. Many speakers urged the unfortunate condition of women often led to crime to save themselves from starvation, and who would gladly quit their evil courses if they could. Moreover, such women being unable to pay for medical attendance, and through the present ridiculously small provision in our public institutions to procure it without payment, for such patients continue to ply their miserable trade as long as they can crawl, during which time they infect scores of healthy persons, many of whom in their turn propagate the disease among persons quite innocent of wrong doing. The large proportion of the out-patients at the Lock Hospital, are women infected by their husbands, infants inheriting it from their parents, the majority of which die in their first infancy, or, if they survive, grow up weak, stunted creatures, incapable of producing healthy, vigorous offspring. The Association aims at obtaining, in the Workhouse Infirmaries, accommodation for venereal women, and to remove from the streets open solicitation. Mr. Skey, Sir Henry Thompson, Rev. E. Wyatt Edgell, Dr. Jenner, Sir Elkanah Arnitage, are among the vice-presidents. Mr. H. Spencer Smith, treasurer, 9, Queen Anne-street, and Mr. Jas. Lane, Mr. Ernest Hart, Mr. Victor De Meric, Mr. Gascoyen, and others, form the nucleus for Committee, to which it is intended they shall enlist a much larger number of members, both medical and non-medical. Mr. J. Brendon Curgenven, 11, Craven-hill Gardens, and Mr. Berkeley Hill, 14, Weymouth-street, have undertaken the duties of honorary secretaries.

MEETING OF THE HARVEIAN SOCIETY.—Nov. 7.

J. B. WALKER, Esq., V.P., in the chair.

DR. MORTON related the case of a child he had lately seen, which was born dead, in a condition of rigor mortis.

ON THE COMMUNICABILITY OF CONSUMPTION.

Dr. C. DRYSDALE observed that a very practical point in the question of phthisis was, whether a healthy person should sleep with their partner when affected with the disease. He was inclined to tell persons to avoid this possible source of contagion. The researches of Villemin and others in Paris, and Dr. Marcet's recent experiments on the inoculation of the sputum, had set him to make enquiries; and he had, at the present moment, at the Hampstead or North London Hospital for Consumption, two cases—one in which a wife, age 33, quite healthy, and of a healthy stock, had become phthisical shortly after her husband's death from the disease; and a man, age 30, also healthy previously, had similarly become phthisical about the epoch of his wife's death from that disease. Dr. Marcet's experiments, he believed, conclusively proved that it would be a most dangerous thing to inoculate any person with the sputum of a phthisical patient, and it seemed to him (Dr. Drysdale) that it was erring on the safe side to counsel persons (who inquired at least) not to sleep in the same bed with those affected with this sad disease.

Mr. OWEN was much disposed to adopt this practical view of the question, as put by the previous speaker. He had certainly met with a case where he was persuaded that a man had contracted phthisis from his wife.

Dr. GIBBON also took this view.

Mr. SEDGWICK could not agree to the advice. Might not the fact of husband and wife simultaneously being affected be accounted for by their occupying the same *locale*, and being under the same anti-hygienic conditions, rather than by contagion?

Dr. SISSON thought that contagious cases would be most likely to be observed among the poor, since, when the husband died or fell sick, the wife was ill-fed and in poverty, and thus likely, if predisposed, to take phthisis. Such cases were not new among the richer classes.

Mr. OWEN was not convinced by this explanation. He thought the disease might be communicated by means of the surat.

Dr. ALTHAUS remarked that Dr. Cotton had shown that the disease was not easily communicable, since the officers and servants of the Brompton Hospital were very rarely consumptive. He had seen two cases in which he had no doubt that the disease was derived from contagion. In many cases of phthisis the sexual appetite is greater than in health, and why should not the husband inoculate the wife by means of the seminal fluid? He mentioned a case where the persons were in good circumstances, and where the husband, a healthy man, manifestly took the disease from his wife; and another similar case had occurred to his knowledge. A physician of the Brompton some years ago retired to Bath with phthisis, which he believed he had contracted at that hospital.

Mr. DE MERIC thought that persons like husbands and wives, who constantly cohabited, were not unlikely to become affected with similar diseases, and he thought, as remarked by a former speaker, that the sweat was by no means an unlikely vehicle for the conveyance of the contagion. He thought that the sweat of the phthisical must be dangerous, as also the seminal fluid. He illustrated the power of constant cohabitation in exciting contagion by the case of a gentleman who became infected after living habitually with an infected lady, with whom he had previously only lived at intervals and escaped. The patient having married the lady, became affected with secondary syphilis.

ON THE TREATMENT OF SYPHILIS, BEING A REVIEW OF THE RECENT DEBATE IN THE SOCIETE DE CHIRURGIE AT PARIS. BY DR. CHARLES DRYSDALE.

The author explained that some fresh statistics had been adduced in Paris against the use of mercury in syphilis, which he was anxious should be known to the profession in this country.

M. Dolbeau, Secretary to the Society of Surgery in Paris, who opened the debate, which lasted from February to July, 1867, mentioned, that of 131 patients with syphilis treated by him in 1863 at the Loureine Hospital, 80 took mercury, and 44 of them had relapses, whilst 50 women took bechromati of potash, and 30 had relapses. Dr. Dolbeau asks, what is the

use of mercury since it does not prevent relapses, or tertiary symptoms, or, in fact, produce any useful effect on the diseases. He speaks with highest praise of iodide of potassium in tertiary cases, and thinks that mercury ought no longer to be used in the treatment of syphilis.

M. CULLERIER objects to the use of mercury for primary sores, and only gives it, he says, when the eruptions have arisen. He observes that many patients are cured without taking any mercury.

M. PERRIN says, that in 1858, when Surgeon to the Val-de-Grace Hospital, he had two wards for venereal patients, in one of which he gave mercury, and none in the other. In four years 470 cases were treated. Preventive treatment he found of not the least avail, and he did not find that mercury modified the ulterior progress of the disease; and, on the whole, was doubtful whether any small advantages it might possess could compensate for its inconveniences.

M. VERNEUIL, a great partizan of mercury in all stages of syphilis, said, the cure of secondary syphilis, by means of mercury, requires about one year and a-half.

M. VELPEAU thinks that about the half of all cases of syphilis get well by natural means, the rest require mercury.

M. DEPRES gives an account of 234 patients of the Loureine in 1866 with syphilis. 15 per cent. of the patients treated with mercury had relapses, and 9·8 per cent. treated by tonics had relapses. Of 200 patients examined by him in the wards of St. Louis Hospital, 37 had syphilis, of these 21 had been treated mercurially, and 6 had had no treatment. The latter were but slightly affected, the former had grave tertiary and secondary affections, although they had, in most cases, undergone long mercurial courses. He mentions the case of a gentleman who, in 1863, took 1200 mercurial pills, and then was ordered by M. Riend to take more of the same. Of 95 patients treated by tonics by him, 5 had iritis; and in 13 treated by mercury, there were two cases of iritis. Feeble syphilis he treats for three months, strong syphilis for six months, and then tells the patient to live well out of doors. Malignant syphilis occurs under all treatment, and mercurialists give tonics in such cases, and leave off mercury. He cites the case of women who have taken much mercury, and nevertheless aborted, and other cases where women who have not taken mercury have not aborted.

M. DIDAY, after stating that he believes that syphilis is due to some parasite, observes that it is spontaneously curable in a certain number of cases, and gives examples where persons have been so cured, and remained well, eight up to twenty years. Tertiary syphilis, according to M. Diday, is only to be *palliated* by iodide of potassium. To *cure* it requires all the combination of hygiene the patient can secure.

M. DEPRES, in the meeting of June 26, brings a new statistic from the St. Louis Hospital, concerning 118 patients affected with syphilis, observed during the years '63, '64, '65, '66. His conclusions were, that everywhere there was a difference between the results of expectation and mercurial treatment, and if he should separate from the statistics those who were ignorant of their disease, he would have a proportion of 4 per cent. of relapses among those who had not taken mercury, against 42 per cent. who had taken it, as far as the St. Louis Hospital statistics showed. Among the cases were two fatal cases of infantile syphilis treated by mercury. In short, the statistics showed that the overwhelming majority of cases of tertiary and secondary syphiiis in the H. San Louis, had before undergone long courses of mercury, without, at any rate, preventing the progress of the disease. Dr. Paulet, a surgeon of the Val-di-Grace, had made recently, and given to Dr. Drysdale, a series of observations on syphilis, treated with and without mercury, and mercury was thereby shown to be totally useless as an anti-syphilitic. Summing up the question, the author thought the treatment of syphilis ought either to be analiptic, with the use of large doses of iodide of potassium in tertiary affections, or, perhaps, all difficult cases should have the benefit of Dr. Boeck's process, which gave such excellent statistical results. As for mercury, it was not proved to be serviceable, and, certainly, it was not a remedy to take merely as a placebo. But the treatment of this sad disease was still beset with difficulties, and it was a grave disease whatever treatment was used, he found, in some cases. With regard to the report read by Messrs. Lane and Gascoyen on Dr. Boeck's syphilisation at the Lock Hospital, he thought this proved, first, that there was no need of mercury, either in primarius, or secondaries, or in iritis; and, were it not for the scars left by this process, it certainly had but few objections, if the admirable results claimed for it by Boeck showed, as he hoped they might be made out, since, if syphilisation would not cure the disease, it was in many cases quite incurable.

Dr. POWER thought that sufficient care had not been taken in the statistics laid before the profession, to separate the various forms of sores. He could himself give no statistics, but his impression was, that at the Westminster Hospital the patients who had taken mercury for indurated sores, were not often seen with secondary symptoms. But they might have gone elsewhere. He had seen much iritis of late years, and the result of his observations was much in favour of mercury. He gave gr. i. of calomel three times a day in iritis, and generally found that in a few days after this was done, the disease began to decline.

Mr. DE MERIC had rather been incited to use more mercury of late years, by the objections made to it, than to diminish his doses, and used the drug in some cases even of soft chancre, in order to make the sore heal more rapidly. In all ways of healing syphilis there are relapses, whether when mercury was used or not. But treatment by mercury did more than expectation. He instanced the case of a child, aged two years, brought recently to him at the Royal Free Hospital, with mucous tubercles at the anus. Wishing to bow to the expectant treatment a little, he treated it merely with zinc ointment to the tubercles, and with a placebo. For a month the tubercles continued unaltered. He then employed black wash and mercury internally, and the tubercles soon disappeared. He had had a case of a person with primary sore in the eye recently. Should he not have treated such a case by mercury? His conscience would not allow him to stand by and wait till such lesions got well. The remedy tried now stood the test of centuries, and nobody pretended that it struck at the root of the disease, but only was beneficial in treating it. It did not prevent secondaries in all cases. Opium sometimes failed to perform its duty, and so did quinine; but we did not refuse to try them for all that. We must not require too much from mercury or any other drug, all of which sometimes fail. He objected to innovations merely for the sake of changing the fashion and having something new, without improvement.

Mr. R. W. DUNN observed that he could not agree with Mr. De Meric, that mercury cured syphilis. He thought that the disease got well of itself, and he had been struck recently in visiting the H. de Midi, with the way in which two of the surgeons there, Drs. Le Fort and Simonet, proclaimed the absolute necessity of using their own peculiar form of mercury, and not any other, in order to cure the disease. With regard to the child cited by Dr. De Meric, had he used nitrate of silver to the mucous tubercles, they would have soon been removed. His treatment had been inert, and when he changed and gave mercury, had he also continued the zinc ointment, the tubercle would have remained. As to iritis, he was convinced the best way to treat this symptom was to drop in a solution of atropine into the eye and avoid mercury. He had recently seen a gentleman lose his sight, he believed entirely through taking calomel for iritis, instead of using atropine. With regard to the treatment of syphilis, he believed that the only fact that could be made out was, that secondary symptoms sometimes disappeared rather more rapidly with mercury, but he was against the use of it, as debilitating the patient's health.

Dr. C. MEREDYTH thought it necessary to study what was the action of mercury. The syphilitic person deglobulises the blood, mercury is absorbed as bichloride, and becomes chloro-albuminate of mercury in the blood. The skin, kidneys, and salivary glans eliminate mercury, and favours the denutrition of the body, fitting it thus to get rid of the poison. There was no specific in medicine, and no one form of mercury was indicated, all that was required was that *some* form of the drug should be used.

Dr. VINTRAS had long discontinued the use of mercury in iritis, and had simply treated such cases by dropping atropine into the eye. As to the case of the child cited by Mr. De Meric, he had not made a fair experiment. He first gave so inert an ointment as oxide of zinc, and then afterwards gave mercury internally, but accompanied this by black-wash, which, of course, was a much better application to the tubercles. This case then proved nothing.

Mr. WEEDON COOKE was glad to aid the growing attack against mercury. We owed much to John Hunter; but it must be taken as an abatement of our debt to that illustrious man, that he had so insisted on the use of mercury in syphilis. He would also remark that there was a growing feeling against the use of mercury. In high places, he believed the views of

Dr. McLouglin had many supporters, such as Sir W. Fergusson. He (Mr. Cooke), although only a half-way house to Dr. Drysdale in his dislike to mercury, thought that this drug should only be used to aid, as in stimulating the liver, and thus assisting sometimes in eliminating the disease. He thought that the true treatment of syphilis resembled that of a dissection wound—*i.e.*, the poison should be encouraged to be eliminated from the body by means of the eruption. In children, also, mercury may appear to assist in removing the eruption, but it will relapse, whilst, if tonics were given, the child would get usually well, and continue well.

Mr. HUKMAN thought that the mercurial treatment of syphilis was on its last legs. It was said that non-mercurialists stood by and did nothing. But, according to M. Verneuil, as read by the author of the paper, mercurialists also stood by, giving mercury for eruptions for about two years. It was absurd, after that, to talk of expectation, and most ridiculous to endeavour to get up a cry of want of conscience on the part of those who did not choose to give such a quantity of mercury for nothing. Especially in congenital syphilis, children get well without any mercury, but you must treat them with local application ; as to black-wash, it acted only locally. Cases of iritis, too, get well without mercury.

Dr. CAMPS was by no means a convert to the giving of no mercury ; there was a median required in the amount to be given, and in this climate he believed a certain amount of mercury would always be required to cure syphilis.

Dr. MENZIES had, from his experience in India, become persuaded of the necessity of using mercury in syphilis, and he thought that army statistics clearly proved this necessity.

Dr. C. DRYSDALE approved much of strong nitric acid as an application to mucous tubercles, and of large doses, such as gr. xv, xx, or more, of iodide of potassium in tertiary nodes, or inflammation of periosteum, whilst he would be glad to see syphilisation tried extensively in all severe cases, which rendered the use of iodide of potassium. Above all, the diseases should, if possible, like the cattle plague, be stamped out.

Correspondence.

THE EDITOR OF THE "DUBLIN QUARTERLY" AND DR. SINCLAIR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

17, Merrion-square, East,
12th Nov., 1867.

DEAR SIR,—As it is prominently stated, and without further explanation, in the pamphlet recently published by Dr. Sinclair, that his observations were refused admission into the "Dublin Quarterly Journal of Medical Science," and as considerable misapprehension prevails as to the reason of this refusal, I shall feel obliged by your publishing the correspondence that took place between Dr. Sinclair and me on the subject.

Connected as I am with the Coombe Lying-in Hospital, and fully concurring also with Dr. Sinclair as I do, that the statistics of an extern maternity can never be sufficiently accurate to allow of their being compared with those of a Lying-in Hospital, it was with extreme regret that I felt compelled to decline publishing Dr. Sinclair's paper, but as there were many matters in the manuscript when it was submitted to me utterly irrelevant to the subject, and, in my opinion, calculated to prevent the fair discussion of an important social and scientific question, by the introduction of angry and embittered personal feelings, I had no alternative.

So long as I have known the "Quarterly Journal" it has been an absolute rule not to admit into its pages anything savouring of personalities, or that might cause personal offence ; and the very paper to which Dr. Sinclair wished to reply was refused admission because of a passage at which I thought offence might be taken, which, however, Mr. Phelan at once removed, when I pointed it out, assuring me he had no intention of writing anything that could bear such a construction. —I am, yours faithfully,

GEORGE H. KIDD,
Editor of the "Dublin Quarterly
Journal of Medical Science."

No. 1.—From Dr. SINCLAIR to Dr. KIDD.

MY DEAR KIDD,—Circumstances having occurred which will detain my stay in England a day or two longer than I expected, my brother-in-law having just arrived from India dangerously ill, I have directed the MSS. to be sent to you. Put it in type. I shall be home at latest on Saturday; four or five hours will complete the rest I have to say. Please, if you find it necessary to alter its phraseology don't print it, for I shall not allow one word to be altered. I shall give or take no quarter. I hope this arrangement will not inconvenience you, and am yours most sincerely, E. B. SINCLAIR.

Southsea, Hants, Monday.

This letter was delivered along with the MSS. on the 16th or 17th July, and by that day's post Dr. Kidd replied, stating that the paper was too late for the journal then coming out ; that he had not had time to read it yet, but that he was sorry to see from Dr. Sinclair's note that its tone was warlike.

On Dr. Sinclair's return to Dublin he asked to have the paper returned, which was done, Dr. Kidd having read it in the meantime.

No. 2.—From Dr. SINCLAIR to Dr. KIDD.

DEAR KIDD,—I shall send you my paper for the next journal to-morrow evening. I hope *this time* its *in time*.—Yours ever, E. B. SINCLAIR.

September 30, 1867.

No 3.—From Dr. KIDD to Dr. SINCLAIR.

September 30, 1867.

MY DEAR SINCLAIR.—I shall be very glad to get your paper for the next journal, especially as I have got another on the same subject, but from a different point of view, from Dr. Elliott, of Waterford, and the question is so important that it ought to be fully discussed. Of course, you saw Simpson's allusion to it at Belfast ?

I hope you will remove all expressions that might be considered by Phelan to be personally offensive. The question is too important to be decided otherwise than on its own merits, and the demerits of any one, have nothing to say to it.

Two other points occurred to me in reading the paper, to which I hope you will allow me to direct your attention.

1st. As to the correctness of the statistics of the Coombe Hospital, would it not be well for you, who are one of the consultants, to inspect the books before you commit yourself to an insinuation, that they are incorrect ?

2nd. Is the amount of bad cases that occur to a consulting accoucheur in large practice a fair test of the average of midwifery practice generally?

It appears to me your references to these two points require further consideration, but that is for you to decide, at all events I will gladly insert the paper when you remove some of the references to Mr. Phelan. I wish you would let me have it as early as possible to-morrow, as I am going out of town for a week on Wednesday morning, and I would like to put it in the printer's hands before I go.—I am, yours, very truly,

GEO. H. KIDD.

No. 4.—From Dr. SINCLAIR to Dr. KIDD.

October 1, 1867.

MY DEAR KIDD,—I leave you my paper for publication in your next journal. *I have not made use of the Coombe statistics, I merely allude to them *en passant*, as Mr. Phelan has ; moreover, I state "it is not my intention to enquire into their accuracy ;" it is, in fact, unnecessary for my purpose.

All I do is, I try to answer what I understand *to be a personal attack upon* my old hospital. I am not personal to Mr. Phelan to a greater extent than that which, under the circumstances, cannot be avoided. I attack Mr. Phelan's statistics, in his own reports ; this forms one of my arguments, and must be done. What I have stated with regard to them, are simple truths, and am answerable for my statements on this head, and I take care to write in the first person.

I have alluded *almost as little in my paper to the Coombe, as* MR. PHELAN HAS IN HIS ! but with a very different purpose. If, however, you, when you have read my paper, think that my allusions to it are unbecoming, as emanating from one of its consultants [here there are two words not legible.—G. H. K.] into your hands I resign that office, and so that difficulty can be overcome. You must excuse me if, in the method of my argument, and mode of handling this subject, I am guided by myself alone. If you decline to publish the paper, please let me know as early as possible, and send it back to, yours faithfully, E. B. SINCLAIR.

No. 5.—From Dr. Kidd to Dr. Sinclair.

Railway Hotel, Killarney,
2nd October, 1867.

My dear Sinclair,—I must beg of you to alter the first few pages of your paper. We have never, so far as I know, had a paper in the journal that could hurt the personal feelings of any one, and I hope we never shall, so I must beg of you to soften the tone of your allusions to Mr. Phelan. As to his facts and arguments, you may deal with them as you please, but let himself alone.

I say nothing whatever about your allusions to the Coombe, as whatever you write on the subject I will insert; but anything of a personal attack I cannot insert.

I will be home on the 10th, and will keep room for you till then.—I am, yours, very truly, Geo. H. Kidd.

No. 6.—From Dr. Sinclair to Dr. Kidd.

28, North Frederick-street, Dublin,
October 3rd, Night.

My dear Kidd,—I have received your note from Killarney, (of the 2nd). You may recollect I asked you in my last note to send me back the MSS. as soon as possible if you declined to publish it. This day I received it, left *by your servant without any communication from yourself*. I then took it for granted you would not publish it, and at once put it in Mr. Falconer's hands to publish it as a pamphlet. He is now putting it in type.

As I have before said, Mr. P's. attack, for it is an *attack*, and one which has had its [word not legible, G.H.K.] long since—is personal against the Rotundo Hospital, and I am not more personal than I can help under the circumstances. I must therefore decline altering my first pages, &c., and so my pamphlet must proceed.—Yours most sincerely,

E. B. Sinclair.

No. 7.—From Dr. Kidd to Dr. Sinclair.

21st Oct., 1867.

My dear Sinclair,—I find there is a great deal of misapprehension abroad as to the cause of your having to publish your paper as a pamphlet, instead of in the "Quarterly Journal," and as this may be injurious to the journal, to me personally, and perhaps to others also, I enclose you a copy of our correspondence, and beg you will print it as an appendix to the pamphlet—the expense of doing which, I shall gladly bear.

If you have altered any of your remarks as to Mr. Phelan, you will, of course, state that you have done so since I saw the MSS.—I am yours, very truly, George H. Kidd.

No. 8.—From Dr. Sinclair to Dr. Kidd.

My dear Kidd.—*You* can publish the enclosed if you wish. I shall merely state on the fly leaf of my pamphlet that my paper was refused admission into the "Dublin Quarterly Journal."

Surely you do not suppose that an author of a medical paper would consent to tone it down to suit the ideas of any Editor of a Medical Journal.

I have altered nothing in my original paper but the assertion, that Mr. P. was not a registered practitioner. The rest is just as personal, if you are pleased to call it so, as when you saw it.—I am, yours, very truly, E. B. Sinclair.

North Frederick-street,
Oct. 21st, 1867.

THE LAWS OF QUARANTINE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—Our quarantine laws having been, in unmistakable language, officially denounced as *fraudulent*, I think the admission of too great importance not to be kept steadily before the profession as well as the public. The system must be admitted by every one who has inquired into its working as an organised hypocrisy of the worst description, and in foreign ports especially, the instrument of the most extravagant official exaction independent of almost incalculable commercial loss. On May 21st, 1867, the Vice-President of the Board of Trade explained to the House of Commons, "That our quarantine establishments are kept up for no useful purpose whatever, *but wholly and solely to satisfy the prejudice of other nations*." So to satisfy ignorant prejudices the unhappy crew and passengers of the steamships *Tasmanian* and *Atrato* were relegated to the Motherbank, and subjected to a piece of refined cruelty, against which every enlightened person should vehemently protest.—I am, &c., F.R.C.S.Eng.

ENGLISH POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—In a leading article of your journal, the opinion of those is supported who contend that the Poor-law Medical Officers should hold their office till they resign or die. At the same time it is said that the subject is a proper one for discussion, and this induces me to come forward as the champion of an opposite opinion.

I do not object in the least to those officers, on account of whom the question has been raised, receiving reasonable compensation should they resign under the alleged circumstances. But I would consider it a bad principle to appoint any paid officer for life. The highest functionaries of state are liable to receive notice, and if one party has the right to quit, it is only fair that the other one has a corresponding privilege. Two disadvantages would result for the community by the medical officers being appointed for life. They would, in the commencement, do the work themselves, but after a lapse of time have it done by deputies, to whom they would pay a small part of their salary. This is actually done in London and elsewhere, but leads to many inconveniences. The substitutes are not of the same qualification as the originally appointed officer, and the poor themselves know that they are attended to by one who is not appointed by, and responsible to, the authorities. They do not complain, but simply apply to public charities for assistance.

Secondly, although it may be very convenient for a small number of practitioners to keep possession of valuable appointments, it is not at all desirable that the great mass of the profession is prevented from working for the poor, and thereby qualify themselves for the better practice.

Public opinion is the best safe-guard for a medical man in office becoming wronged, and he should rely on it rather than on a legal title, which I consider unjustly claimed.

I am, however, willing to be corrected, being quite impartial in the matter.—I remain, sir, yours, &c.,

31, Great Russell-street, W.C. F. Oppert, M.D.

DR. PORTER'S REPLY TO MR. H. LEE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—In your "Notices to Correspondents" of 6th inst., Mr. H. Lee draws attention to a discrepancy in my paper reported in Medical Press and Circular of the 30th ult., in the following words:—"Dr. Porter says that the opinion expressed in my letter of 17th of April, this year, was corrected by the missing link being supplied on the 6th of March!" In answer to this I beg to state, that in applying the words, "missing link" to the tuberculous eruption, I did not consider I was *correcting* the opinion expressed by Mr. H. Lee. On the contrary, I thought I was *more justified* in using the term, as the latter part of Mr. Lee's letter read thus: "Taking into consideration the entire absence of any eruption of the skin, the absence of any ulceration in the throat, and absence of any other syphilitic symptom, I am much more inclined to regard the case as one of ordinary secondary inflammation in an enfeebled constitution than one in which secondary syphilitic disease followed a soft sore."

The remaining part of *the notice* regards the state of the patient on the 10th of March, and the notes of the case on the 16th of May, as unfavourable to the conclusion, why so, I cannot understand. If in fault I am anxious to be corrected. —I am, dear sir, your obedient servant,

Angus M. Porter, M.D.

WINDFALLS.

P. R. O. writes as follows:—

The very great misapplication of the patronage given to those high personages who procure "windfalls" for their favourites, deserve thorough exposure, and the lash of public censure. As an old practitioner, and a reformer in the sense of "Interloper," I consider it your duty to give the profession a statement as to those windfalls, and the names of those members of Medical Council who promote them, in order that we may judge how far they have betrayed their trust. The abuse is a glaring one, and members of the Medical Council who may have procured windfalls for their friends or others during their councilship, if there be any such, and I believe there are, must be at once displaced, if their own "high" sense of honour do not permit them to vacate their seats.

APPOINTMENTS.

A. E. Sansom, M.D., Lond., M.R.C.P., has been appointed a Physician to the Royal Hospital for Diseases of the Chest, City-road, vice Dr. A. Leared, resigned.

Sir William Fergusson, Bart. was elected Vice-President, in the stead of John Propert, Esq., deceased, and W. W. Gull, M.D., a Director, in the place of George Budd, M.D., who had resigned, to the Society for Relief of Widows or Orphans of Medical Men.

Original Communications.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. IX.—MUCOUS MEMBRANES.

THE mucous membranes exemplify very strikingly the ordinary resources of the œconomy when subjected to disturbing influences, and also those which are called into action when these injurious influences are either more intense in degree, or of more enduring continuance.

Ordinarily, the resource is either an increase of secretion, sometimes of a kind more or less like that which is usual, but more commonly of pus, or of a puriform description. If the disturbing influence be continued, these membranes exemplify the law under which abnormal depositions take place on their exterior surfaces, or in the cellular tissue, between these and the adjacent structures.

Although this circumstance does not close the canal as deposition on its inner surface would do, yet it in time necessarily narrows the calibre, and the deposition, if continued, ultimately affects the mucous surface itself. All this never takes place without many premonitory symptoms; but they are often attended with so little inconvenience that the canal is sometimes seriously diminished in its calibre before the attention of the patient is roused to regard it. A number of serious secondary consequences now arise, which comprise the well-known symptoms of stricture. These I need not detail, but it is as well to observe that there is hardly one of them which may not occur without any stricture at all, and as a consequence of a certain irritable condition of the canal.

It is necessary to be aware of this, not only on account of the treatment, but because it is a condition which affords the most instructive evidence of how much affections of the canals of the body depend on the general health, and how clearly they exemplify the ordinary laws of the œconomy. Various causes so multiply affections of the urethra that this dependance on the general health is most frequently demonstrated in disorders of that canal; but it is equally observable in affections of the œsophagus, rectum, and trachea.

The irritable condition of these canals has frequently led to treatment which has only served to continue the disturbance. The Surgeon, meeting with obstruction to the passage of an instrument, and having as his dominant idea, the mechanical conditions of stricture, has, by the continued introduction of an instrument, not only been fighting with difficulties of his own, but has too often had his attention diverted from the true nature and treatment of the case. Surgeons in general must, I think, have had cases of so-called stricture, in which, after due preparation of the patient's health, they have passed a full-sized instrument without any difficulty. I by no means, however, think that Surgeons are equally aware of the fact that the very same occurrences happen with regard to the rectum and œsophagus. Indeed, with regard to the œsophagus, the impression I derive from my observation is that Surgeons in general have the notion that little is to be done in such cases, whereas I can most confidently assert that, with due care, many of such cases are just as tractable as in any other canal, and, *cæteris paribus*, perhaps more so than similar affections of the rectum.

That they require more care as to the treatment of the general health, is, I think, very true; but this care being given, and the special conditions required by the part not overlooked, there is no affection of any of those canals in which the results obtainable are more gratifying. I have published cases in proof, and I cannot repeat them here

In the treatment of these diseases, the things to be remembered are these, chiefly:—That in all cases where irritants are not applied at once to the part, these diseases are merely exemplifications, first of that law which determines irritation of nerves to their extremities, as in the case of the ulnar nerve to the fingers it supplies, and that they are actions transferred to a site different from that in which the originally disturbing cause was seated. No one can, I think, reflect on the various affections of the rectum, even those which torment in direct consequence of mechanical conditions, without being convinced of the dependance of those diseases on disturbance of this or that internal organ. Everybody must have observed among the earliest indications of irritation of the mucous membranes those premonitory itchings, so familiar at the nose, and anus, and orifice of the urethra, so indicative of some disturbing influence more deeply seated. Of course, tumours and other circumstances may afford mechanical obstructions to the circulation of this or that part, but these are exceptions which explain themselves.

Now as to treatment; abstractedly, there is no reason why the depositions, in cases of stricture of the canals of the body, should not be removed by any treatment, constitutionally, which may be found equally successful in any other abnormal depositions, could we only command the necessary conditions. Professor Benjamin Dudley, of Lexington, an early pupil of Abernethy's, and one of the most successful and distinguished surgeons of the Western parts of the United States, was confident that he had removed strictures by attending to the general health of his patients, and though the most successful of operators, and especially in lithotomy, he ascribed his success, not to any extraordinary skill, but to the pains he was in the habit of taking with the general health, both before and after his operations. I have not seen cases of stricture in which the stricture was removed wholly without mechanical interference, but many circumstances induce me to believe in the possibility of obtaining such results. As Abernethy used to say, with regard to another class of deposition:—"I can see no more difficulty in understanding how an absorbent can take up an atom of matter, than I can in comprehending how a vessel may lay it down." The reason why we cannot rest on this treatment is that we cannot *completely* command the required conditions. Extraordinary or additional functions, such as are involved in the term reparative, require repose, or something as near to it as we can obtain. This accomplished, I see no reason why any organ might not be repaired as easily as a cut finger, but that is just what we cannot obtain in regard to the mucous canals. Yet the satisfactory and, in some degree, astonishing results we sometimes observe from such *approximations* to repose as *are* within our power, fully justify any expectations we might indulge from a more complete application of this principle. The canals of the body are in constant use, yet, by cautious diet, by gentle mechanical assistance in relation to the rectum, appropriate food in cases of œsophageal stricture, and special care as to the avoidance of all unnecessary excitement by morbid acrimony of secretion and other sources in the urethra, more may be accomplished than those who have not tried it will readily believe.

At one time I was in the habit of removing various growths from the rectum and anus, in some cases, after years of torment and fatigue to the patient, from inability to sit with comfort. The results were most satisfactory; but I afterwards learned that I had attributed far too much to the removal, and far too little to the general measures, such as rest, diet, horizontal position, and generally soothing measures. The first case that awakened me to the real view of these matters, was one in which I was called on to remove an enormous growth from the borders of the rectum and anus, on a patient whose state of health manifestly was such as to forbid any immediate operation.

I had no other object in delaying the operation but to put the patient in sufficiently good health to justify it. As this progressed, the enormous tumour gradually became absorbed, so that no operation became necessary, unless I

may call that an operation which required only a single stroke with a small pair of scissors, and which was rather in accordance with the wish of the patient than at all necessary. Diseases of the œsophagus require great attention to the health—the selection of soft food, great care, patience, and small portions in swallowing, and the *postponement of any attempt to pass bougie* until there is evidence of improved health. Then the passage of an instrument down to the spot where there is evidence of obstruction ; I tell the patient to hold up the hand when he wishes me to desist, and I, of course, comply with his wishes. In this way, in a very few visits, I find I can pass the instrument as quietly as I can in any other canal. It should be remembered that it is the character of all mucous canals to resist at first any instrument passing from without inwards, but it is also a character gradually to admit foreign bodies, if they are conducted with gentleness, and under favourable conditions. The experience of tracheotomy shews us that even that irritable tube is not wholly without this character of accommodation to circumstances. Although it is easily excited by the very same material (carbonic acid), unless very largely diluted, which, in a less diluted state, it is emitting from within every minute without disturbance.

I failed, however, in a patient who had been subject to some manipulation, without due preparation. He appeared to have been subject to some not very gentle manipulation, and he had suffered so much from a dread of suffocation, and other distress, that nothing would induce him to allow me to attempt to pass any instrument. He died with a very curable stricture of the œsophagus, as I believe, for there was nothing but ordinary deposition in the parts strictured—the whole having been sequent on an intemperate life, inducing a large and congested liver. With regard to contractions in the urethra, nothing puzzled me more when I was young than those cases. My predecessor, in one of the institutions to which I was surgeon, left me a great many very severe cases, in which very little progress had been made. I found, after a good deal of practice, that when you had to deal with certain varieties and complications, that different cases required certain modifications of treatment. I published my observations on the subject with the sanction of my master, Abernethy, to whom, with permission, I dedicated the book.

There is no doubt that, as regards the mechanical or other treatment applied to the part, in *ordinary cases*, and in the hands of a tolerably skilful and gentle manipulator, any of the various modes of treatment will do. Bougies, elastic or metallic catheters, caustic, lancetted catheters, or other modes of dilatation or division ; but none of these modes, in my experience, are permanently successful, unless combined with correction of the general health, and the habits which may have led to the disturbance of it.

The causes being brought again into operation, the strictures return, and, therefore, I by no means agree with those who think that strictures are not permanently removable, where the necessary conditions are given. Here we only require what is necessary in regard to every other disease. The mucous membranes, and especially that lining, the urinary organs, are constantly irritated by irregular living, and they have also a very lively sympathy with the skin. I may as well here mention one case illustrative of this little point. A married gentleman, of perfectly temperate habits, applied to me for relief from a stricture of the urethra, which had been very troublesome, and, on one occasion, put him in some danger, he said, from an obstinate attack of retention of urine. On examining him, I found a stricture of that hæmorrhagic character which I had formerly described, and in which I had recommended the kali purum, as advised by Mr. Whately. He soon got well, but in about a year he again applied, and again got well. As I had confidence in my own principles, I was convinced that we had overlooked something or other, and yet I knew not what, as his habits appeared unexceptionable. I had, however, missed a great point. I found that his employment involved his being in a very large room, which was very cold, and where he was not accustomed to guard himself by any additional clothing. I told him this was probably the explanation of the return of his complaint. Upon this he supplied the requisition by extra clothing, and had no return of his complaint.

As for dividing strictures by cutting instruments, lancetted catheters, or forcibly dilating them, my experience does not encourage me to say much in approbation of such measures. From the "Sonde a Dard" of La Faye, they have at times had their day, but have seldom kept any hold on the profession beyond those who introduced them, or revived their use. In my view, they do not minister to the cause of the disease and, therefore, can hardly afford permanent relief. It is difficult to see how the mere division of a stricture can minister in any way to the causes whence it has been produced; whilst it is not at all difficult to see how the division of a thickened membrane may induce an eschar, which may ultimately make the matter worse, to say nothing of the tendency to blind the patient as to the real causes of his complaint. If I am told that the division is followed by instruments to maintain the opening until healed, this, unless in cases where an incision is absolutely necessary, does not meet the objection to the practice. It is a kind of ready method which may sound acceptably to a patient, but in my view it is like many other operative proceedings, unnecessary, and, consequently, not vindicable. My experience of the efficiency, in different cases, of the gentle dilatation by instruments of progressively increasing calibres, with the occasional, though rare one, of the kali, where there is that altered condition of the surface of which I formerly wrote, would not justify me in employing or recommending other means. Most people have seen, and most museums exemplify the results—the lamentable results—of force in regard to the canal of the urethra. From all that I have gathered on the subject, I have a very strong impression that were the whole of the cases recorded, a conclusion would be deduced much more opposed to any forcible manipulation than has ever been deducible from the experience of any *individual*, or for which any one is prepared, who has not paid much attention to the subject. In operative proceedings, of course, all cannot be successful, but even a single death, by measures that *are not necessary*, appears to me to render the repetition of the proceeding absolutely unjustifiable. It is nothing to be told that a patient wished this or that, if it involve any risk from which it is the solemn duty of the surgeon to protect him.

I know of no application of force or incision in removing strictures, which has not, in some instances, been followed by the most deplorable results, in cases of a description which, with milder treatment, are safely relieved, without any sequence, but improved health and comfort. If the Royal Medical and Chirurgical Society had adopted the plan which I recommended, and empowered a Committee to request and report all cases, whether of success or failure, we should have done more in adjusting the merit and adaptation of operative proceedings to their respective cases in two years, than we have accomplished in the last century. This is one of the many discreditable deficits in the prosecution of medical science. Only let any one for a moment consider what the effects would be if law reports were as loosely recorded as those in medicine and surgery. How is it possible for any man, if his whole time were devoted to it, to adjust the merit of this or that mode of proceeding, if he has only to deal with successful cases, or such few of the less fortunate as chance may throw in his way. As to the objection that the publication of failures may injure a man's reputation or practice—the objection is futile. The *publication* of the name would add no value to the facts, and the communication of them to the committee, as a necessary verification, would do no harm; whilst the authority of a special commission would render it very difficult for any one who was sufficiently negligent of his duty to conceal a case without hazard to his character.

The loose manner in which medical investigations are too

frequently conducted is painfully in contrast with the spirit and accuracy which prevails in most other departments of science; and by no means does the profession justice. As a body, no men are more zealous, or possess less prominent appetency for gain; or are more ready to assist in anything for the public good. I know I may here be taunted with the spirit observed in the College of Surgeons, but I have, in common with many others, not excepting some of their own body, regarded the college as an assemblage of men with nothing beyond commercial aspirations, and as not in the least degree typyfying either the science or the earnestness of our great profession, but time is already working changes there, and no doubt will, after a while, extend improvement of the College to the Royal Medical Chirurgical Society, where, under the "Hospital System," the principal surgical officer is still usually some functionary of the College of Surgeons.

I have only two concluding remarks to make in connection with the subject of mucous surfaces. In most cases there is, *cæteris paribus*, some one point or attention to the general health, which is of special consequence to the disease before us, and in regard to the mucous surfaces, in no one organ is more important that you should guard from avoidable changes than the skin.

The other is, that in deprecating the treatment of stricture by incision or lancetted catheter, I am not including those cases where the passage, from neglect, has become impermeable, and where you divide the stricture by an incision through the integuments. I have seen cases of this kind so treated with very good results, but those really requiring this treatment are, in my experience, extremely rare.

ON THE INDUCTION OF PREMATURE LABOUR BY THE DOUCHE.

By THOMAS TELFORD, M.D., L.R.C.S.I.,
EX-ASSISTANT PHYSICIAN, ROTUNDO HOSPITAL.

The induction of premature labour in cases of undersized pelvis, is an operation of great importance to the practitioners of Midwifery, and has, for a long time, engaged their attention; by its means we are sometimes enabled to save the life of the child, and thus add greatly to the happiness of the parents. Various modes of proceeding have from time to time been adopted, and with a varying amount of success—such as rupturing the membranes, separating the membranes around the os, passing a catheter between the membranes and the wall of the uterus, by the hydrostatic dilator of Dr. Barnes, the administration of ergot, and by the douche; the latter is the plan which I adopted in the three following cases, in preference to any other.

Rupturing the membranes is very uncertain in its action. I have frequently seen women come into hospital hardly in labour, though the membranes had been ruptured some days before admission. Early rupture of the membranes predisposes to a rigid condition of the soft parts, adding a new difficulty to the case; the separating the membranes, or passing a catheter between the membranes and uterus, unless done with great care, is likely to rupture the bag of waters, and is, therefore, open to the same objection. Of Dr. Barne's dilator I have no experience. The administration of ergot, I am confident, is not efficacious in producing labour, as, from a series of experiments I made under the direction of Dr. Denham, master of the hospital, for the purpose of testing the toxic effects of ergot on the fœtus, we found that ergot administered to a woman seven or eight months pregnant, neither induced labour, or exerted any deleterious effect on the child.

The application of the douche is extremely simple, it is best done by placing the patient in the usual obstetric position, with the hips drawn well over the edge of the bed; by passing a full-sized Ferguson's speculum, the os is brought into view, the nozzle of an ordinary syphon syringe is then inserted into the os, and a continuous stream of water injected into the cavity of the uterus. On the withdrawal of the syringe, the water pours out of the uterus in a full stream; this may again be repeated a couple of times, one such application will generally induce labour within twenty-four hours. Before using the syringe you must be careful to fill it with water, so as to exclude the admission of any air into the uterine sinuses. Some physicians advise the alternate use of hot and cold water; this, I think, a matter of unimportance; tepid water is most agreeable to the patient, and should therefore be used; otherwise, as the action of the water is altogether mechanical, it is immaterial whether we use hot or cold. The action of the water closely resembles the action of the uterus, by gradually separating the membranes around the os and cervix uteri. The three following cases illustrate the rapidity with which labour is induced.

Mary Brien, aged 23, pregnant of her second child, was admitted to Hospital, November 28th, 1866. She had been delivered in the Rotundo Hospital, at Christmas, 1865, by the crotchet, owing to narrowing in the antero posterior diameter of the brim. She was then advised, should she again prove pregnant, to come into hospital between the 7th and 8th month, in order that premature labour might be induced, as we feared, owing to the narrowing which existed, a child at the full term could not be born alive. She neglected to come into hospital till just eight months pregnant, when the probability of saving the child was much less than had she been seen earlier. Having cleared out the bowels, I douched her in the manner already described at 12 noon, November 30th; labour commenced at 2 P.M., the pains being short and frequent. At 12·30 A.M. of December 1st the membranes ruptured, no presentation being then discernible, it being altogether out of reach of the finger.

At 8·30 A.M., I was called to see her, and, on examination, found the right hand in the vagina; the child was alive, as proved by the hand grasping the finger, when introduced. Version was at once determined on, and chloroform having been administered, I passed my right hand, and turned with the greatest care; the breach and body of the child were then delivered; the arms offered considerable resistance, and were with much difficulty brought down; the delivery of the head was then attempted in the usual manner, and a considerable amount of extractive force used by myself and Dr. Denham, but without avail. Fearing that any further force might tear the vagina from the neck of the uterus, I delivered the child by perforating behind the ear and using the crotchet; the child was a male, and much larger than most eight months' children. Her convalescence was rather slow; she suffered from some tenderness of the abdomen for a few days, and afterwards from an attack of sciatica, but went out quite well in a couple of weeks.

The second case is that of Eliza Scott, aged 26, pregnant of her fourth child. Her first two children were delivered by the crotchet. She was then advised to come into hospital when seven months pregnant, should she again prove so; this she did, premature labour was induced by the douche, and she was delivered of a live child in Sept. 1862; the child lived till eleven months old, when it was carried off by measles. Finding herself again pregnant, she applied for admission on the 28th of February of the present year, being at the time nearly eight months gone. The bowels having been opened, the douche was applied on March the 1st, at 11 A.M., and again at 4 P.M.; labour came on that evening, the membranes ruptured at 11 A.M., March 2nd, the os being then fully dilated. The pains were quick and strong, but as the head had made no advance at the end of two hours, and the fœtal heart increased in rapidity, delivering by the forceps was decided on. With the assistance of Dr. Cronyn she was delivered, after considerable difficulty, of a healthy male child. Her convalescence was most satisfactory, not a single bad symptom having arisen.

The third case is that of Mary Doyle, aged 21, pregnant of her second child. She had been delivered by the

crotchet June 25th, 1866, and was then advised to come in when seven months pregnant, this she neglected doing till past the eighth month. The douche was applied at eleven A.M., June 21st, 1867; labour came on almost immediately; the membranes ruptured at 5·30 P.M., when the right arm was found in vagina. She was put under chloroform and version performed; the arms were brought down with ease, but no amount of traction would deliver the head; the head was then perforated through the mouth and extracted; her convalescence was most satisfactory, she going out on the eighth day.

The foregoing cases are interesting as showing the certainty with which premature labour can be induced by means of the douche, when properly employed. In the *Medical Times and Gazette* for November 2nd of the present year, a paper was read by Professor Layarewitch, "On the Induction of Premature Labour by Injection to the Fundus of the Uterus." This operation, however, requires a special apparatus, and is not more effectual than the douche used in the ordinary way.

In two of the cases related the arm was the presenting part, and turning had to be performed. This operation is recommended by Sir James Simpson in cases of undersized pelvis, where the head is the presenting part. On the supposition that the head will mould itself to the pelvis, I have tried it myself in three cases, and seen it done once or twice by others, but the result did not equal my expectations. Of three cases I had myself, the child had to be delivered by the crotchet in all, and in one the uterus was torn from the vagina, the woman dying in half an hour; yet, those were cases considered favourable for the trial.

These cases are brought forward in order to show the facility with which premature labour can be induced.

PERMANENT HEMIPLEGIA OF THE RIGHT SIDE, SUBSEQUENT TO AN ATTACK OF PUERPERAL CONVULSIONS.

Esther W., aged 28, of fair complexion and sanguine temperament, born of healthy parents, was admitted to the Rotundo Hospital, September 19th, 1864, in labour of her seventh child. She has a very foolish expression of countenance, and complete paralysis of right, upper, and lower extremities. On examination the os was found about the size of half-a-crown, labour came on towards evening, and she was confined at six A.M. on the morning of the 20th, her labour being easy and natural.

On making enquiry as to the cause of her present condition, she stated that she married at seventeen, was confined of her first child at nineteen, and enjoyed perfect health to within four days of her last confinement. About two years ago, she was seized with a fit while in bed, which rendered her completely insensible, in which condition she remained till after delivery. For this illness she was bled twice from the arm, blistered at the back of the neck, and put under the influence of mercury. Ever since this illness she has been subject to fits of an epileptic character, occurring once and sometimes three times a-week; the last of those fits took place on the morning of her admission into hospital. Her convalescence since delivery has been most satisfactory, not a bad symptom of any kind having occurred. Her mind is evidently much weakened, but if her attention is fixed she answers questions very sensibly; she talks slowly, and in a hesitating manner, and is inclined to laugh without any provocation. The tongue, when protruded, inclines to the left side, in which direction the mouth is also drawn. The right hand is firmly clenched, and she cannot raise it without the assistance of the other. Sensation is perfect in both upper and lower extremity. The occurrence of permanent paralysis after puerperal ecclampsia is very uncommon. I have been unable to find a case of the kind recorded. The explanation which I would give of this case is, that the primary attack was one of hyperæmic convulsions, some of the vessels at the base of the brain gave way, and a clot was formed, a portion of which becoming organised, would account for the recurring fits, as also for the permanent paralysis.

REPORT OF A CASE OF PARALYSIS OF THE FORE-ARM AND HAND, SUCCESSFULLY TREATED BY ELECTRICITY.

By N. J. BUTLER, L.K.Q.C.P.I., Etc.

J. J., æt. 40, of nervous temperament, previously healthy, but of dissipated habits, consulted me about the commencement of the last month, when he stated that about three months previously, having been drinking hard for some time, he one morning upon awakening from a drunken slumber discovered the right fore-arm and hand to be completely paralysed, having slept during the night with it flexed under his head. Upon discovering the sad *contretempts* that had occurred during the night, he immediately consulted his medical adviser, who ordered the limb to be frequently douched with cold water, to be succeeded by assiduous friction. This line of treatment he persevered in for some time, but not finding any benefit accruing from it he had recourse to another physician, who recommended the employment of magneto electricity in conjunction with the cold douche, and friction. He, however, so far as I could learn from the patient, applied it merely by placing one pole in the sound hand, and the other in the opposite one. This, I conceive to be not only an ineffectual mode of employing electricity in any form, but in some instances absolutely injurious. When he consulted me, he had so far recovered the use of the hand, as to be able to flex the fingers slightly, but when asked to grasp my hand, the pressure produced by the flexors was, I may say, imperceptible. I commenced treatment by ordering half a grain of the extract of nux vomica three times a day, and applied electricity in the following manner:—I had about two pounds of rock salt dissolved in two gallons of water at a temperature of 102 in this bath. I ordered him to immerse his arm up to the elbow, and to allow it to remain so for a few minutes, so as to saturate, as far as possible, the skin of the arm and hand, and so increase its conducibility. I then introduced one pole of an ordinary magneto electric machine into the bath, along with the hand, ordering him at the same time to withdraw the arm sufficiently far to allow the other pole provided with a large sponge electrode to be applied in the vicinity of the elbow-joint, particularly to the trunks of the large nerves supplying the fore-arm. After continuing the application in this manner for about five minutes, I ordered him to slowly withdraw the arm from the bath, and at the same time passed the sponge of the pole along all the muscles of the arm as it was withdrawn; this I continued to do until the hand was taken completely out of the water, when I placed the arm and hand on a board fixed across the bath; I then put one pole in the affected hand, and again slowly and steadily passed the other electrode down the muscles of the arm, *in this way bringing the paralyzed muscles, and these alone*, under the influence of the electricity. Finally, I removed the other pole from the hand in which it was placed, armed it also with a sponge, and placing both on opposite sides of the arm, drew them several times down from the elbow to the extremities of the fingers, having one pole a little in advance of the other. After the application had been completed, I placed a Pulvermacher's chain on the arm, fixing the positive pole near the elbow, and the negative near the wrist-joint. I ordered him to wear it night and day, and to excite it at least three or four times in the twenty-four hours, by applying a little vinegar and water to it. After continuing this treatment for a couple of days, having had only two applications, he was so far recovered as to be able to flex the fingers forcibly on the hand, to bring it nearly on a straight line with the arm, and even, with some exertion, to button his waistcoat. Having experienced the satisfactory results of the treatment adopted, he willingly persevered with it, and at the end of twelve days he was perfectly, and in all respects, restored the use of his hand, every symptom of paralysis having vanished. To my mind this case presents many features of interest in connection with electro-therapeutics. We see,

in the first instance, the almost utter inutility of magneto-electricity, when employed, as it but too often is, by simply placing a pole in each hand, and transmitting the interrupted current through both arms. I cannot conceive a single case in which such a procedure would be useful, and yet it is the constant practice of many to do so. If it is our object, as it was mine in this instance, to restore suspended nervous influence to a certain set or sets of muscles, and where from the absence of any symptoms indicative of centrific or inflammatory disease we regard electrcity as the most effectual means of doing so, then I think that common sense alone should be sufficient to demonstrate to us that we should confine our remedy to the ailing member as far as possible, and to it alone. Were we, for instance, to regard a blister or a stimulating liniment as the proper treatment in this case, surely we would never dream of applying either to the opposite arm, and across the chest and back, as well as to the affected member. The action of electricity is, in many cases (this one included), as easily localised as that of any other remedy, then why not do so? Again, by applying the electrode to the dry skin, it alone is acted upon to any extent; but, on the contrary, when we moisten and saturate it as far as possible, and use at the same time moistened electrodes, we are, owing to its increased conductability, enabled to reach the deeper structures of the body, and so accomplish our object. In order to become successful electricians, we must first make ourselves acquainted with the principles of electro-physiology, for nature ever requires an exact obedience to her unwritten but imperious laws.

REPORT ON WINE.

[SPECIALLY PREPARED FOR THE MEDICAL PRESS AND CIRCULAR.]

IV. PORT.

(Continued from page 385.)

THE manner in which port wine is brought up to a false standard by the manufacturers, has already been pretty fully illustrated in our criticisms on the reports of Mr. Crawfurd and Mr. Lytton. As, however, these articles are exciting wider interest than we anticipated, we feel it necessary to add, from other equally trustworthy testimony, some additional evidence as to the practices that really prevail in Portugal, and the objects with which they are employed. We shall also have to show how a system of adulteration, commenced under various pretexts there, is increased in this country to an extent scarcely credible.

As to geropiga, of which so much has been said, the following from Mr. Consul Johnston's report to the British Government (1849) is significant:—

"Geropiga is used in Portugal to give to wines the appearance of possessing qualities which in reality they have not, or to conceal the bad qualities which they have. In England I believe it is mixed with the harsher kinds of Spanish and Pontac wines, and with compositions made to imitate wine. I am told that tavern-keepers employ it also, (and with great profit to themselves,) instead of spirits and sugar, in different beverages, and that the demand for it for this purpose is increasing; and I think this is likely, as the liquor is probably often as strong as the spirits commonly used by such persons, and is always sweet. I believe that nearly the whole of the geropiga consumed in the United States is used in the way just mentioned."

"If a high import duty be imposed on geropiga in England, it will of course cease to be imported there under that denomination; but I apprehend that instead of it, port wine having an unusually large quantity of brandy mixed with it, and perhaps sweetened also, may be introduced, unless such wine be considered as falling under the 134th clause of the Act 8 and 9 Vic. c. 86, or unless wines be classed and charged with duty according to the quantity of adventitious alcohol which they may contain; and although the portion of spirit added might not be ascertainable by means of a hydrometer, I conceive that it might be distinguished by wine-conners with sufficient exactness for the purposes of such a classification."

That our previous quotations on other points, but illustrating what is understood by *fortifying* may be further corroborated, we here add a paragraph or two on this point from the same witness.

"The ordinary wines of the Upper Douro in moderately good seasons contain about 13·43 of strong native spirit; that is to say, a pipe of such wine, upon being distilled, will yield about 14 imperial gallons of brandy, 25 degrees above proof."

. . . . . .

"The best wines are of course considerably richer in spirit; and it would seem, therefore, that if skilfully made, the addition of brandy to them must be unnecessary for any good purpose; nevertheless, the average quantity of brandy mixed with the wine exported to places in Europe (of which wine about four-fifths go to Great Britain and Ireland) is 20 imperial gallons a pipe, and its average strength that above mentioned."

. . . . . .

"The average quantity of brandy added to wines sent to Brazil is only ten imperial gallons. It is asserted that this quantity is sufficient, because such wines are of a lower quality than those sent to England; from which it would seem that, to preserve them from the ill effects of a short voyage, and the climate of England, the wines naturally most rich in spirit, require twice as much alcohol to be added to them, as is sufficient to prevent the less spirituous wines being injured by a long voyage and a hot climate."

The above statements have been long on record, they have given rise to violent controversy, every effort has been made to diminish their influence, yet they have never been in any degree invalidated. In fact it would seem a hopeless task to attempt to impugn them, for they are founded upon a series of careful experiments, the results of which have been expressed precisely in figures, as will be seen from the following extract of a

STATEMENT OF THE RESULT OF AN ANALYSIS OF 117 LOTS OF PORT WINE, MADE BY MR. JOHN ATLEE.

Lots 1 to 10 contain 50 lbs. per hundred gallons of grape saccharine, and 35 gallons of proof brandy per 100 gallons, equivalent to 70 per cent. of brandy to the body or grape of the wine.

Lots 11 to 18 contain 53 lbs. grape and 35½ gallons of proof brandy, equivalent to 67 per cent. of brandy to the grape.

Lots 19 to 28 contain 59 lbs. grape and 37 gallons of proof brandy, equivalent to 63 per cent. of brandy to the grape.

Lots 29 to 37 contain 54 lbs. grape and 35½ gallons of proof brandy, equivalent to 65 per cent. of brandy to the grape.

Lots 30 to 47 contain 43 lbs. grape and 34 gallons of brandy, equivalent to 79 per cent. of brandy to the grape.

Lots 48 to 57, lots 58 to 67, contain respectively 51 lbs. of grape and 35 gallons of proof brandy, equivalent to 69 per cent. of brandy to the grape.

Lots 68 to 75 contain 64 lbs. of grape and 37 gallons of proof brandy, equivalent to 59 per cent. of brandy to the grape.

Lots 76 to 85 contain 52 lbs. of grape and 35 gallons of proof brandy, equivalent to 65 per cent. of brandy to the grape.

Lots 86 to 91 contain 52 lbs. grape and 36 gallons of proof brandy, equivalent to 69 per cent. of brandy to the grape.

Lots 92 to 101 contain 51 lbs. of grape and 35 gallons of proof brandy, equivalent to 69 per cent. of brandy to the grape.

Lots 102 to 111 contain 62 lbs. of grape and 36 gallons of proof brandy, equivalent to 58 per cent. of brandy to the grape.

Lots 112 to 117 contain 41 lbs. of grape and 35 gallons of proof brandy, equivalent to 80 per cent. of brandy to the grape.

Let what has preceded suffice for the present respecting the manufacture by the Portuguese. We have now to add that on several occasions before the wine reaches the con-

sumer it is subjected to far worse treatment. As we have already argued, whatever excuses may be made for the use of any foreign ingredient during fermentation, can never apply to those who, after importation, resort to any such practice. Yet, we regret to be compelled to believe that houses supposed to be respectable, and certainly engaged in extensive trade, are guilty of these abominable frauds. After purchasing the already fortified wines, they add more spirit to conceal other additions which do not fortify. They mix together wines of various strengths and qualities, and, by a system of "manipulation" which knows no bounds, subsist and grow wealthy on practices which, when fairly exposed, will be reprobated by every honest tradesman.

In our last article we let a ray of light fall upon this system, which we intend to expose more fully. No doubt there are many who, so long as our denunciations are confined to foreigners, are ready to echo every word, but who will be shocked to hear that the opulent British merchant is "tarred with same brush," and to a much larger extent. In no trade has the infamous robbery of *adulteration* flourished as it has in the wine trade; and of the many merchants of all nations engaged in it, we are not sure that the English have not been the worst of all.

Of course, this will be denied, and we shall be asked for chapter and verse; and equally, of course, we shall be ready to give both. The fraud is not new, but it would be useless to detail its history. By way of foretaste of the kind of facts we are prepared with, if challenged to prove our words, we will furnish an example in advance. It is ten years old, to be sure; but that shows, as we have said, these frauds are not new. Alas, that it should be true, and that it should be only a sample of what commercial men can bring their consciences to.

In July, 1857, the *Commercio do Porto*, a newspaper we have already quoted, published the following narrative:—

"A remarkable circumstance transpired on the Exchange yesterday, which created much sensation. The steamer 'Vesta,' from London, arrived here with ten pipes of liquid on board, stated to be port wines, and valued at £400. The captain of the 'Vesta' stated that it was unnecessary that wine should be landed, as it was merely shipped for the benefit of the voyage from England and back. The Commissioners of Customs, not assenting to this view of the case, the ten pipes were landed, and, on application being made to enter for re-exportation, it was refused, as the whole transaction appeared mysterious, the intention evidently being to enter the wine, which it is strongly suspected originated at Hambro, in the port of London, as *Port Wine from Oporto*, and if successful in this adventure, to carry on the speculation on a large scale.

"The Director of the Customs, with other competent officers, also various merchants, who had been attracted by the impression the news had created, proceeded to taste this liquid, which was found to be a composition in imitation of port wine, not supposed to contain any portion of the juice of the grape, but made up of the dregs of sugar, a vile species of alcohol, and other factitious ingredients. In consequence of this tasting, the customs' authorities refused to allow the ten pipes to be re-exported, and ordered them to be immediately put under lock and key.

"The attempts made, in Hamburg especially, to introduce spurious wines into the London market, are well-known, and it appears that about 3000 pipes of these liquids now exist in the Docks there, but not being direct from Oporto, buyers are only tempted at very low prices, and there can be no doubt these ten pipes were shipped by the 'Vesta,' to be re-shipped to England, purposely with a view of their being qualified as port wine from Oporto. If this shipment had proved successful, no doubt they would have been carried on on a larger scale, and the result would have been great discredit to port wines."

Ridley's Circular, with which we have had occasion to differ, but which we have seen, on looking over its file, has often done its best to check these frauds, announced in its number for the following August, that the ten pipes mentioned "consisted of French, Portuguese, Malaga, and Hambro' Reds, British Spirits, &c., and that this *omnium gatherum* was mixed in a vat" on the 25th of June preceding, and shipped on board the "Vesta," on the 11th July. These facts were, of course, easily ascertained from the Custom House papers.

It will be now perfectly clear to most of our readers that there is no secrecy whatever as to the frauds so systematically practised. So common are they, and so easily traced, that on a foreign journal exposing one, no difficulty was experienced by an English contemporary in identifying the transaction on the unimpeachable authority of the Customs papers.

We have not yet alluded to the adulteration of wine with capillaire, perhaps we ought to say the use of this article to concoct spurious imitations of wine, which British merchants fabricate so largely, and which is thus described and condemned by a trade organ:—

"Another practice calling loudly for reprobation is the manipulation of inferior vinous liquids, both in duty paid and bonded establishments, with sweetening materials, whereby, they are temporarily transformed into the 'soft, rich, full bodied' wines, offered at temptingly low prices by advertising dealers.

"Within the last four years, a large trade has been carried on in an article known as capillaire, a solution of saccharum and water of 1332 degrees specific gravity, equivalent to 10 pounds of solid sugar in the gallon, the use of which is unfortunately sanctioned by H. M. Customs (Vide General Order, No 91, 1857), in the proportion of one to every hundred gallons of wine, under the specious cognomen of "sweet finings", and the quantities employed are noted with the same precision as the percentage of spirit used in fortifying operations.

"It may be taken for granted that in 99 cases out of a 100, when common red wines displaying a tendency to acetous fermentation, or flimsy whites, such as those imported from Hambro', and fabulously designated 'Elbe Sherry,' and other wines of low quality are passed through vats, this 'Balm in Gilead' is liberally applied. As a matter of fact illustration of the ingenuity displayed in some quarters in the art and mystery of restoring, invigorating, and mellowing shaky constitutioned liquids, we give the following particulars, extracted from Custom-house Registers, of a metamorphosing operation recently performed at the St. Olave's Bonded Warehouses. On the 4th November last, 3175 gallons of French red were amalgamated with 1020 gallons of proof spirit, and 31 gallons of the so-called 'sweet finings;' and on the 12th November, 6550 gallons of the same description of wine, with 2100 of spirit, and 65 of 'sweet finings;' making up together 12,941 gallons, viz., 9725 of wine, 3120 of spirit, and 96 of capillaire. It is, of course, out of the question to imagine for a moment that a poor French red wine, recently imported and valued on landing at from 30s. to 40s. per hhd., could stand in need of the addition of 32 per cent. proof spirit, for legitimate purposes; it must, however, be borne in mind, that German spirit is a very cheap commodity, being now quoted as low as 1s. 6d. per gallon; also, that wine merchant proprietors of bonded depôts are enabled to carry out such operations at a much less expense than those who are subject to heavy dock charges, and, lastly, that they are probably enabled to dispose of such wholesome beverages through the valuable assistance of indefatigable advertising connections, to say nothing of fortnightly circulars, containing particulars of goods for sale, and issued 'Gratis, for information of the trade'; all of which may be regarded as inducing causes for trying to make 'a silk purse out of a sow's ear.'"—*Ridley's Circular*, January 7, 1863.

We are bound to express our opinion that the conductors of the *Circular* deserve much credit for the tone they have adopted respecting these iniquitous frauds, and we trust that all honest men engaged in the wine trade will set their faces for the future against these nefarious practices. It is the practice, we know, of some houses, as soon as they discover a wine to be "pricked," to sell it by auction. But what then becomes of it? It passes through the hands of a manipulator, and thence to some unscrupulous merchant, who sells it at a large profit. Now, the men who let it thus pass are only injuring themselves. It would be their interest to prevent the sale of such stuff, which too often spoils the taste for a really good article. It is for the trade to take some steps in the matter for their own protection. Meantime, we warn all parties, as the *Circular* well observed on one occasion—

"It would certainly repay buyers of low quality wines, to inquire into the history of the goods offered for sale—*i.e.*, to learn whether they had ever been through a vat, fortified, capillaired, or treated with chalk, or any other alkali.

"Independent of the necessity, real or imagined, to fortify wines up to 40 per cent., the cheapness of spirit holds out considerable inducement for such operations on empoverished liquids, and capillaire being added to abate the heat generated, it is difficult for the uninitiated to detect the nature of the composition" (*Circular*, Jan., 1863).

The effects of these intolerable mixings and spiritings may be very briefly summed up. The first evil is that which teaches the public to expect qualities in wine that the grape cannot produce, and to form their opinion of wine from a false standard. The next result is, that shippers pander to this supposed liking, till at length almost every kind of wine has been more or less manipulated, sweetened, and fortified, so as to resemble the adventitiously strong wines of Spain and Portugal, whereby the natural tartrates are masked, or they are removed chemically by chalk or lime. Unfortunately, too, this practice of sweetening and fortifying permits all kinds of wines to be mixed, whereby all distinctive flavour is lost.

As to the great questions of health, we presume it is undeniable that many of these fabrications are likely to be most noxious, and all of them tend greatly to interfere with and frustrate the intentions of the physician, who looks to wine as a remedial agent.

Note.—The above has been in type for two weeks, but owing to the length of the Introductory Lectures at the Dublin Schools, we were compelled to postpone it with other matter. Since then *Ridley's Circular* has ventured upon a reply to our "Wine Report, No. 3," which we regret not to be able to characterise. The writer starts by attributing the authorship of the article in question to Mr. Lytton. A more unfounded assertion could not be made. We know nothing of Mr. Lytton save as the writer of the report in the Blue-Book we cited. We have never, to our knowledge, seen him. We have never had any communication with him. Before drawing so hasty a conclusion, from the fact of our accepting *some* of Mr. Lytton's opinions, the writer might have ascertained, by a perusal of the three articles that have preceded this, that so far from seeking to give prominence to the facts he had proved, we were actually compelled to advert to them on account of the publicity they attained *after* we had begun our reports; and that the first two articles of this series were devoted to a consideration of the report of Mr. Consul Crawfurd, which is so much approved by our mistaken censor.

Having thus vindicated our own good faith from the uncalled for aspersions that have been thus wantonly cast upon it, we express our regret, that a journal which, as we have duly acknowledged, has done something to put down the malpractices we condemn, should have descended to such a mode of attack, instead of offering us argument upon the questions at issue. So little apology is made for what we have condemned, that but for the necessity of demanding a retractation we should not have added this note. That retractation will, no doubt, be forthcoming. To the defence offered for adulterating port, we shall return next week.

Hospital Reports.

ST. THOMAS'S HOSPITAL.

EPITHELIAL CANCER OF THE TONGUE, REMOVED BY GALVANIC CAUTERY: RECURRENCE OF DISEASE AFTER SIX MONTHS.

Under the Care of Mr. SOLLY.

JAMES W., æt. 51, a healthy-looking, robust man, was admitted into King's Ward, under the care of Mr. Solly, November 20, 1866, with commencing epithelioma of the tongue.

The history was, that the sore had existed for about six months, but that the tongue had been very sensitive to irritants for some years, and had frequently ulcerated during the fruit season, healing readily afterwards.

There was no family history of cancer or tumours. The patient had contracted syphilis twenty years previously, but did not seem to have suffered severely.

His present condition was the following—the surface of the tongue on the left side was denuded, and gave the appearance of a smooth, healthy, granulating sore. But deeply in the substance of the tongue, and continuous with the abraded surface, was a great deal of hard thickening, which had been steadily increasing during the past six months. To determine the true nature of the deposit or growth, a small piece was snipped from the surface, and examined microscopically, when the presence of "bird's nest's" and epithelial growth, gave distinct evidence of its being epithelial cancer. The glands in the neighbourhood were not manifestly implicated, but there was some suspicion of enlargement of those below the jaw at the time of operation.

On Jan. 16, in the present year, Mr. Solly removed that side of the tongue which was affected, and employed for the purpose the galvano-caustique apparatus. A platinum wire was first passed through the back of the tongue, nearly in the mesial line, and its ends attached to the galvano-ecraseur. This, when connected with the battery, was made to burn its way out in the middle line, ending at the tip. The noose was then adjusted over the left half of the now bifid tongue, taking care to get well behind the disease.

Chloroform was not given, and the man showed hardly any sign of pain. He afterwards stated that the operation was hardly at all painful, as far as regards the cautery, but that when a scalpel was used to remove an overhanging piece of surface, it caused him far more exquisite pain. There was no bleeding at the time. Three or four hours afterwards, however, there was very copious hæmorrhage, which could not be checked by plugging or styptics, and the dorsalis linguæ, which was the bleeding vessel, was ligatured.

He progressed very favourably from this time, and went out of hospital sixteen days after operation. The notes of Mr. Dobson, who was then dresser to the case, state that only a little thickening (which appeared inflammatory) remained about the scar, and that there was no enlargement of glands in the neighbourhood.

He presented himself again in April, with the tongue greatly improved, but there was rather more thickening about the cicatrix, and a single gland was felt below the jaw. He had been able to articulate much more distinctly, could swallow food with great comfort, and suffered no pain at all.

In August he again appeared, and by that time the disease had recurred, and now extended too far back to be amenable to further operation, and the neighbouring glands were more extensively affected.

Remarks.—The case itself is a simple one, but instructive in several particulars. In the first place there was no hereditary tendency to the disease, and in this respect it is not peculiar. Epithelioma is very rarely so, and even in the malignant forms of cancer we are strongly of opinion that in a very small percentage of cases can any history of similar or allied growths in the family be found. Out of twenty-nine cases of cancer in which this point was inquired into carefully, and which occurred during the year 1866 at St. Thomas's Hospital, only four gave any history of tumours occurring in the family.

The use of the galvano-caustic was very successful in this case, in the ease and rapidity with which it effected the removal of the disease; and, although hæmorrhage occurred a few hours after the operation, there was no bleeding at the time. The wire which cuts its way through the tissues, sears the surface at the same time, and checks the hæmorrhage, which is often so obstinate in a highly vascular organ like the tongue. One point ought to be noticed here in the use of this galvano-caustic apparatus. If the battery be too powerful the platinum wire is raised to a white heat, and is readily melted, and the operation checked till a fresh wire replaces the broken one. Or, if it be thick enough to resist fusion, it burns its way with such

rapidity through the tissues that no sufficient coagulation takes place, and the vessels bleed as readily as if cut across by a knife. What is required is a red heat only, sufficient to burn its way gradually, and arrest hæmorrhage from the vessels it lays open.

The comparison between the pain caused by the cautery and that by the scalpel in this case is satisfactory, and is borne out by several other instances which have lately occurred at this hospital. And this deadening of pain makes the use of this instrument of peculiar value in operations of this kind, where chloroform is likely to prove dangerous.

Finally, we see that by the removal of a cancerous growth which was giving great discomfort, preventing articulation, and seriously interfering with deglutition and nourishment, this patient gained freedom from trouble, and more or less from pain, for over six months.

HULL GENERAL INFIRMARY.

CASES OF INJURY OF THE HEAD.

We are indebted to the plan that has been adopted of admitting into the volume of reports that some of our hospitals issue, contributions from gentlemen not on the staff of the institution, for a sketch of all the principal cases of injury to the head treated in the Hull General Infirmary from 1858 to 1863.

This important record of cases appears in this year's "St. Bartholomew's Hospital Reports," upon which we have already drawn, and is written by Mr. Charles Jewel Evans. The cases were mostly under the care of Messrs. Huntington and Craven, and Drs. Lung and King. A few of them have already appeared in one or other of the weekly journals, but Mr. Evans gives the whole, dividing them into groups. Altogether, forty cases are recorded, their chief features being arranged in a series of tables—a method which facilitates comparison and has many other advantages.

They are, of course, recorded as briefly as possible, although it would be unjust not to say that some of them are very complete, and must have entailed much labour on Mr. Evans. More than half the cases—twenty-three of them—were from falls into the hold of a vessel, or into a dry dock. This, of course, arises from the situation of the infirmary in a large port. Six cases were from falls from buildings, and one from a horse. Six were from blows; three occurred on railways; one arose from the kick of a horse. There were twenty-two deaths and eighteen recoveries.

The first group consists of five cases of concussion, of which one proved fatal.

The next two cases were punctured wounds. One of these was fatal from hæmorrhage on to the brain. It was a singular case, arising from a fall upon an old basket, a fragment of which passed along the floor of the orbit, through the sphenoidal fissure into the skull. The pupils were dilated on admission; vomiting came on, with tendency to stupor. Typhoid supervened. On the ninth day tonic spasm of muscles of neck. On the tenth he died, when post-mortem examination showed the nature of the injury, but did not detect laceration of brain-substance, nor fracture of the bones.

The next group is that of two cases of simple fissure of the skull, both of which recovered. One in hospital fourteen days, the other thirty. The shorter case arose from being struck by an engine travelling at the rate of thirty miles an hour. The longer was an old man who was struck by a piece of falling iron.

The next group is composed of six cases, all fatal. In two extravasations in clots were found after death. In the other four, signs of inflammation of the brain or the meninges. Convulsions occurred in three of these six cases, and also in two of the former groups. Out of the five cases in which this symptom occurred, four were fatal, and in all four hæmorrhage or effusion was found after death.

The fifth group tabulates seven cases of fractured bone and depression, in which no operation was performed, because no cerebral symptoms occurred. All ended in recovery.

Next to this we have a group of five cases, in which trephining was employed, but with only one recovery. In all four fatal cases the autopsies revealed serious inflammation, or extravasation of blood within the skull, and in three out of the four there was fracture of the base. It is conjectured that this lesion also existed in the one recovered. In one case bleeding was resorted to, and calomel and antimony were mostly given before or after the trephining. These cases are not numerous enough to enable us to judge of the value of the operation. The accidents are of a kind that render recovery unlikely under any circumstances, and it is impossible to say what injury may have been done that cannot be satisfactorily proved to exist. We know that cases of depressed fracture do recover, and others that look even more favourable do die. It seems, now, to be the general opinion that trephining is a sort of *dernier ressort*, from which little can be hoped, and Mr. Evans seems to be impressed with the same feeling. Our own impressions, from cases observed in the hospitals of London, correspond with them.

The seventh group contains six cases, in which there were symptoms of fracture at the base. Three of these cases recovered; the other three died, and the diagnosis was confirmed by post-mortem examination. In each of the cases that recovered there was hæmorrhage from one or both ears, and also paralysis of the face. It is noticed, however, that when death took place it was at an earlier period than that at which paralysis usually supervened.

We find three cases in which the autopsies showed fractures across the course of the middle meningeal artery, causing rupture of this vessel, and extensive extravasation consequent thereon.

The last group consists of five cases, in which the fractures were so numerous and so severe that recovery may be said to have been from the first simply impossible. In four of these five cases the patient died in an hour, or an hour and a-half. The other case lived ten days, but after death inflammation within the skull was shown to have taken place. All five cases were terrible accidents. In one the head was crushed between two bales of cotton on railway trucks. Others were falls from considerable heights. The autopsies showed most extensive injuries. At the sutures in each case the bones were observed to have been very widely separated. In one case there was great hæmorrhage from the left ear, although the seat of the chief injury was on the opposite side, at the base of the skull.

The state of the pupils, of the pulse, and of the respiration are mostly noted, though they would seem to afford but uncertain indications. There are also to be found in these tables many other interesting details. We have but selected a few for the benefit of those readers who have not access to the volume. To those interested in this subject these statistics will be welcome.

There are plenty of other equally valuable contributions in the third volume of the St. Bartholomew's Reports, which we need not again commend to our readers. We shall be glad to return to the volume.

MILITARY HOSPITALS.

In the Medical Press and Circular for the 13th inst. we published a long notice of the Army Blue-Book, in which we mentioned that, as it was impossible to do justice to such a mass of valuable matter in the space allotted for such notices, we should return to some of the more practical parts of that large volume in other departments of our journal, and should probably condense some of the cases for our hospital reports. To-day we propose to redeem our promise by relating two cases of dysentery treated by Staff Assistant-Surgeon J. F. Foster. We believe that both cases will be found interesting to our

readers, only a small proportion of whom will have met with them in the blue-book. In giving them a larger circulation we trust we are contributing to the advancement of practical knowledge, and that the author will consider our doing so a greater compliment than merely mentioning his contribution in the course of a brief review of a volume of nearly 1000 pages :—

TWO CASES OF DYSENTERY, WITH PERFORATION OF THE INTESTINES AND HEPATIC ABSCESS. UNDER THE CARE OF STAFF ASSISTANT-SURGEON J. F. FOSTER.

Case 1.—Private J. W., 27th Inniskillings, admitted into Regimental Hospital at Hazareebagh, 2nd August, 1866, with dysenteric symptoms, being at the time a prisoner. The next day he broke out of hospital and escaped into the jungle, where he remained for three days before he was recaptured, subsisting entirely upon such wild fruits as he could procure.

On re-admission the dysentery was much aggravated, and he also suffered from remittent fever. Acetate of lead and opium with quinine was the treatment pursued until the 22nd, when he had recovered from the fever, but the dysentery remained as before. He had frequent ineffectual calls to stool, attended with much abdominal pain, straining, tenesmus, and passes slime and blood. Astringents, ipecacuanha, laxative and turpentine fomentations were had recourse to, but without avail, and the fatal termination of the disease, which occurred on the 9th September, was accelerated by his obstinate refusal to take the nourishment ordered for him.

At the post-mortem examination, thirteen hours after death, the cavity of the peritoneum was found to contain a considerable quantity of serum mixed with pus ; there was adhesion of the folds of the intestines to each other in many places, due to fibrinous effusion, but no trace of vascular engorgement. The lower half of the ileum was congested internally, and covered with a yellow granular deposit, which adhered strongly to the mucous membrane. The colon was in a state of gangrene almost throughout its whole extent ; large portions of its tissue being entirely destroyed, leaving great gaps through which its contents had escaped. The liver, the right lobe of which was somewhat enlarged, presented externally a very dark-coloured surface, covered with a multitude of small light spots, varying in size from a mustard-seed to a split pea. On section, these spots were found pervading its entire substance, and consisted of minute pustular deposits. These spots were so numerous, and in such varied stages of development, that it was most easy to trace them from their commencement. Their earliest indication appeared as a faint haze around the periphery of a single lobule, gradually extending towards the centre, until the whole lobule was involved, and the intra-lobular vein was seen in the very middle of a small abscess. This course was invariable in the hundreds of diseased lobules observed, and their size and opacity increased in the same ratio as the purulent matter approached the central vein. This surely goes far to prove that hepatic abscess associated with dysentery is caused by the direct absorption of pus cells by the mesenteric veins, and their ultimate deposit in the minute capillaries of the portal system ; but I regret to say that the experimentum crucis —the microscopical examination of the blood contained in the portal vein—was unfortunately omitted.

Case 2.—Private P. R., 27th Regiment, admitted into hospital 24th July, 1866, with diarrhœa, which resisted the usual astringent treatment until the middle of August, when well-marked dysenteric symptoms appeared. On the 30th he passed, per rectum, a quantity of membranous flakes intermixed with blood, and from this date he gradually became worse, and died on the 11th September.

Treatment.—Astringents, opium, castor oil, ipecacuanha and taraxicum, aromatics and stimulants, with anodyne enemata, and turpentine fomentations.

In this case also the peritoneal cavity was found to contain pus, yet, beyond a slight matting together of the omentum, there was no trace of peritonitis. The colon throughout its whole internal surface was thickly studded with ulcers of a circular form, some of which had perforated its coats. The liver was large, and on the convex surface of the right lobe was an open abscess as large as an orange, the diaphragm in contact with it being thin and pus-stained, but not adherent ; two other abscesses about the same size were contained in the substance of the lobe. In the left lobe was a smaller abscess, which had opened on its under surface, allowing the contents to escape into the peritoneal cavity. No symptoms of hepatic disease had been present during life, and the condition of the liver was altogether unsuspected.

In both cases there was a great accumulation of bile in the gall-bladder.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

At a recent visit to these important institutions we found them in full working order for the clinical duties of the winter session. Large classes of students attend this winter, as in former years.

We specially noted a marked improvement in the dead house of the Hardwicke Hospital. This has been remodelled and fitted up with all modern improvements during the summer. It has been remarked at these hospitals that there was a great subsidence of fever of all kinds during the summer and autumn, when many days elapsed without the admission of one case of true typhus. This has to some extent been accounted for by the peculiarity of the meteorology of the past season. But the last few weeks have been marked by the fresh admission of several cases of both typhus and typhoid. The latter seemed to be the predominating type ; and at present a large proportion of the admissions to the Hardwicke Hospital are cases of typical typhoid fever.

We have every reason to believe that this also holds good as regards private practice. Dr. Lyons reports to us that he has seen several marked cases of typhoid, and when showing to us some of these cases, he at the same time observed that diphtheria has been characteristic as occurring in the course of both typhus and typhoid cases.

We have in hands a report of some surgical operations by Mr. Fleming, which we hope to give in our next number.

SIR PATRICK DUN'S HOSPITAL.

This hospital is now in full operation as a Medico-Chirurgical institution, under the provisions of the amended School of Physic Act of this year. There is a very large class here, nearly thrice as large as it used to be under the old system. Professor Banks, and Dr. Bennett, University Anatomist, are respectively Clinical Physician and Surgeon on duty at present.

At a meeting of the governors, held on the 11th inst., it was reported that the maternity house in connection with the hospital is nearly completed, and is expected to be shortly opened. The out maternity, under the direction of Professor Sinclair, is expected to be available for St. Mark's parish and Ringsend, on the 1st of January, 1868.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

We are indebted to the courtesy of Dr. Stokes for an opportunity of seeing an important case of acute purpura in a child now under his care ; and also a case of thoracic, and one of abdominal aneurism.

We are further indebted to the courtesy of Mr. Porter for an opportunity of witnessing his operation for venous nævus with Bruce's Gas Cautery, and an operation for hare-lip. A report of these operations is in hands, and will appear next week.

There is a large class at the Meath Hospital.

Summary of Science.

(Specially Edited and Compiled for the Medical Press and Circular.)

By CHARLES R. C. TICHBORNE, F.C.S.L., F.R.G.S.I., Etc.

[The Editor of this Summary wishes it to be understood that he is not responsible for the ideas, theories, or the correctness of statements made in any of the papers quoted in the compilation.]

THE AKAZGA ORDEAL OF WEST AFRICA.

Dr. Thomas Frazer gives a description of this poison, which is referred to in the works of Du Chaillu and Winwood Read.

It is used as an ordeal for the detection of crimes on the West Coast of Africa, and in a large district many miles inland, which extends north and south of the equator, and also in the adjacent island of Corsica. Several thousand persons are annually subjected to this method of trial. The fatal cases are about fifty per cent. There are, says Dr. Frazer, several instances in which a natural order produces several very similar active principles. In the loganiaceæ itself, strychnia, brucia, and igasuria already exist, and these are nearly identical in their physiological actions. In chemical properties brucia and igasuria have much in common, and they are both readily distinguishable in this respect from strychnia. Akezgia (the alkaloid from the akezga ordeal) conveniently completes this group, as its chemical properties are nearly allied to those of strychnia, whilst its connection with all its members is maintained by the similarity of its physiological actions. About ten grains of the active principle may be separated from 500 grains of the stem bark. It is a colourless amorphous substance, soluble in 60 parts of cold absolute alcohol, in about 120 parts of ether, and in 13,000 of water. It is soluble in chloroform, in bisulphide of carbon, and in benzole. It crystallizes with difficulty, but may be obtained in the form of minute prisms by the slow evaporation of a solution in rectified spirit. The solutions of akazgia have an alkaline reaction, and neutralize acids; the salts being freely soluble in water, and having a non-persistent taste.

It is precipitated from its solution by hydrate, carbonate, and bicarbonate of sodium, and by iodide, sulphocyanate, ferrocyanide, and chromate of potassium; by phosphate of sodium, chloride of tin, gold, and platinum, carbazotic acid, tincture of galls, iodine; but these precipitates are never crystalline. The physiological properties are very similar to those of nux vomica, and comparative experiments were detailed to show that the active principle has exactly the same activity as the extract. When bichromate of potassium or any of the oxidising tests are used, the same succession of colours is produced from blue to brown, which result from a similar treatment of strychnia.

CRYSTALS DEPOSITED FROM THE BRAIN.

Mr. S. W. Moore *(Chemical News)* noticed in the museum of St. Thomas's Hospital a deposition of crystals from the brain preparations. On inspecting a jar containing the deposit, there was found a very thick layer of crystals at the bottom, which crystals, on further inspection, were seen to have the form of rhombic plates. Over these there was a layer of what might have been mistaken for mucus or brain matter; but on examination with the microscope they presented a very beautiful appearance, two or three distinct forms being apparent, viz.:—1. Small stars formed of globular bodies, a little smaller than the male human blood corpuscle. 2. Forms resembling two pieces of tape—one in a semicircle, the other stretched across its diameter, the ends on both sides being twisted.

In appearance the crystals were waxy, they were tasteless and insoluble in water; on ignition they burned away with a bright smoky flame, leaving no residue whatever. The tests for nitrogen, phosphorus, and sulphur were carefully applied, but with no result. The substance was precipitable from its etherial solution by alcohol, its melting point was 103° C. and on combustion it gave the following percentage :—

Carbon	43·79
Hydrogen	8·09
Oxygen	48·12 by difference.
	100·00

From this an empirical formula may be calculated having the following constitution, $C_7 H_{16} O_6$, or $C_{12} H_{26} O_{10}$, the latter, perhaps, giving a calculated result nearer than the found one, viz :—

Carbon	43·64
Hydrogen	7·88
Oxygen	48·48
	100·00

From the results obtained above, we may safely conclude that the substance is not cholesterine, its high percentage of oxygen and its low melting point excluding it from that supposition. It is equally impossible that it should be cerebric acid, because it is perfectly neutral and contains no nitrogen, the absence of phosphorus proves that it cannot be oleophosphoric acid.

ON THE REFRACTION-EQUIVALENT OF SALTS IN SOLUTION.

Every body has the power of bending a ray of transmitted light, and this power has been expressed by a number, which physicists term the "*refraction index*"—"*specific refractive energy*" is this refractive index, minus unity, and divided by the density of the body, whatever that may be. This number, when multiplied by the atomic weight of the substance, is termed its *refraction*-equivalent. Gladstone has had a superior apparatus constructed for him by Mr. Browning, and has communicated the results of his observations on the subject of refraction-equivalents at the late meetings of the British Association. He examined a series of salts in solution, in the hopes that it might afford data for determining the refraction-equivalents of all the metals, and of their substance, with which those metals will form soluble salts.

The following is the manner in which we arrive at the refraction-equivalent of a salt in solution. A weight of it, answering to its chemical equivalent, is dissolved in a certain number of equivalents of water. The refraction-equivalent of the whole solution will consist of the refraction-equivalent of the salt, plus so many times the refraction-equivalent of water, and as this number is known, we have only to substract it from the whole, to obtain the refraction-equivalent desired. The metallic iodides gave refraction-equivalents ranging from 30·5 to 35·3. The metallic bromides ranged from 21·7 to 25·3. The metallic chlorides ranged from 15·1 to 18·6. The highest number in each instance was the potassium salt. It was at once evident that the dispersive equivalent of an iodide was at least double that of a bromide, and three times that of a chloride.

On comparing the salts of the same metal, this difference between the halogens was still better defined, the number for the iodide almost invariably exceeding that for the bromide by a little more than ten, and that for the chloride by a little more than sixteen, therefore the halogens exerted the same influence on the rays of light, with whatever metal it was combined, and that any metal, as calcium, was unchanged in its refraction-equivalent, whether it was united to chlorine, bromine, or iodine. This observation was subsequently extended to a totally different class of salts, the sulphates, which give numbers always about one less than those given by the chlorides.

BICHLORIDE OF METHYLENE AS AN ANÆSTHETIC AGENT.

Dr. Richardson says that this promises to be a new and valuable anæsthetic. It is formed by the action of sulphuric acid on zinc in chloroform, and it differs from chloroform in that one atom of chlorine is replaced by an atom of hydrogen. Its boiling point is 88° Fahr., and the odour of its vapour is sweet, and much like that of chloroform.

"On testing it physiologically we found it to be a gentle, and perfect general anæsthetic. Under its influence ani-

mals lapse into the third stage of anæsthesia with the slightest exhibition of the stage of excitements." Compared with other anæsthetics the bichloride of methylene appears to Dr. Richardson to combine the anæsthetic power of chloroform with the safer properties of ether. It is too early to speak positively on this point, but if the expectation be fulfilled the perfection of a general anæsthetic will have been obtained for the benefit of the world.

HEMATOIDINE.

This solution is generally considered identical with bilirubine, the red colouring matter of bile discovered by Mr. Staedler. Their characteristics are, notwithstanding, far from the same. The author has extracted the hematoidine from the yellow and red corpuscles of the ovary of a cow. These corpuscles, which are red when old, enclose sometimes crystallizable hematoidine, which is recognizable by the microscope. To extract it from the corpuscles they are broken with a glass-stirring rod, and treated by chloroform, with frequent agitation. After some days it is filtered, and the brown solution is left to evaporate. There remains then a fatty mass of a redish yellow colour, in which is formed, in some days, crystals of hematoidine, at the same time that it visibly fades. The hematoidine appears under the microscope in triangular plates, presenting a convex ridge. It is red by transmitted light, and green by reflection. When purified by ether, it resembles more chromic acid. Treated on the object-glass of the microscope by a drop of nitric acid, it becomes temporarily blue and then yellow; chloroform dissolves it with golden yellow colour; bisulphide of carbon dissolves it with a fiery red. Ether does not do so well. Alcohol, water, ammonia, soda, non-oxygen acids, swell hematoidine, but do not dissolve it. Glacial acetic acid dissolves it by heat with a yellow colour. This solution is coloured blue by the vapour of nitrous acid, and then fades altogether. Treated the same way, the solutions in ether or in chloroform do not colour blue, and no longer present the changes of colour in the bilirubine—it simply fades.

Bilirubine and hematoidine differ equally in their form, and their chemical character. The former has acid tendencies, the latter is entirely unaffected. Bilirubine is insoluble in ether, and soluble in alcohols. The hematoidine is soluble in ether, and insoluble in alcohols. Finally, bilirubine presents changes of colour very marked by the action of acetic acid, charged with nitrous vapours, whilst the hematoidine only becomes momentarily blue. That reaction may serve to recognise the latter substance.

REMARKS ON A SPECIMEN OF SEA-WEED CHARCOAL. BY EDWARD C. C. STANFORD, F.C.S.

Mr. Standford introduced to the meeting (Pharmaceutical Conference) an interesting specimen of charcoal, obtained by the carbonization of tangle. This substance consists of the long stems, *saminaria digitata*, which are thrown up in great abundance on the western shores of the outer Hebrides. These are collected in the winter, and dried in the air. These, when first thrown up, are long, fleshy stems, from seven to eight feet in length, and about the thickness of the wrist, but, when dried, present hard, horny, flexible rods about the size of the finger. When carbonized, they swell out into a highly porous charcoal, about three times their original volume. This charcoal contains about forty per cent. of salts, free from sulphides, and very rich in iodine.

After lixiviation the residual charcoal has the following composition; it varies slightly, and the average proximate analysis in the dry state is here given :—

Carbon	50
Phosphate of lime	4
Carbonate of lime	20
Carbonate of magnesia	6
Silicic acid	5
Aluminia...	2
Sulphate of potash	5
Chloriodine	5

And about 1·25 per cent. ammonia.

This charcoal cannot be used for sugar-refining, on account of the large percentage of carbonate of lime, but it possesses decolourizing and deodorizing properties, superior weight for weight to the best animal charcoal; tested with solution of caramel, it decolourizes twenty-five per cent, more than animal char. under the same conditions.

It has been subjected to continued filtration of the thickest town sewage for several months, without the least clogging, and its efficacy after this treatment remained unimpaired.

ACTION OF HEAT UPON BICARBONATE OF MAGNESIA.

According to M. Rose, the residue on evaporating a solution of carbonate of magnesia in carbonic acid, consists of *magnesia alba* when the residue is dried at 120°. M. Mulder says, that the product consists of the neutral carbonate of magnesium—Mg O, CO_2.

BOHEIC ACID.

An acid has been described under this name as occurring in black tea. Its discoverer, M. Rochleder, not only describes the acid, but gives the composition of its salts. According to some late investigations by M. Hlasiwetz, this boheic acid is merely a mixture of gallic, oxalic, and tannic acids. M. Rochleder, however, stated that this acid only occurred in very small quantities.

ON THE COLOURING MATTER OF THE YOLK OF EGGS.

M. Staedeler says that the yolk of eggs, not coagulated, when agitated with ether, yields some colouring matter and fat. The residue of evaporation becomes a greenish blue when in contact with nitric acid, containing NO^4. If the grease is partially saponified by soda, the ether takes from it all the colouring matter, which proves the absence of the colouring matter of bile, for bilirubine, if combined with soda, is insoluble in ether. The substance which is immediately given up to the ether presents all the characteristics of hematoidine mixed with a fatty substance, and the extractive of the egg. It is probable that these two colouring matters are identical, or closely allied, but at present the author has not observed the crystallization of the colouring matter of the yolk of an egg; the fatty substance which accompanies it becomes gradually viscous, and probably prevents crystallization.

ON AN APPARATUS FOR THE DETECTION OF ADULTERATIONS IN COFFEE. BY JOHN C. DRAPER, M.D.

This apparatus consists of a tube 1 inch in diameter, and 8 inches in length, which terminates below in a narrow tube a quarter in diameter, and four inches in length; the lower small opening is closed by means of a cork to a certain point, from which it is graduated two-tenths of a cubic centimetre. A number of these tubes, with a suitable stand and a small measure holding one cubic centimetre, complete the apparatus.

When it is to be used, the tube is closed below, and filled to within half an inch of the upper extremity with cold water (that has been boiled to expel the gas, and kept in a well-stoppered bottle to prevent its re-absorption), a cubic centimetre of the sample of ground coffee under examination is then cautiously dropped on the surface of the water, when we should notice—1st., whether it sinks quickly or slowly; 2nd, what tint and odour it imparts to the water; 3rd, the expansion in bulk as measure in the graduated tube; 4th, the change in colour of the grounds, and whether they collect loosely or not.

If it is a good and a pure article, it floats on the surface for a considerable period; and, if freshly roasted and ground, will often remain suspended for days if the tubes are free from agitation. In the majority of instances it falls in a few hours, and imparts to the water in the tube a delicate amber tint, and a faint coffee-like odour, each particle, as it rests in the small tube, retaining its outline, individuality, and colour, and the increase in bulk being about one-half a cubic centimetre.

If it is chicory it sinks instantly, nearly the whole mass tumbling into the small tube in a single minute, and even

in its rapid passage through the water, imparting to it a deep brown colour, and an odour somewhat like that of liquorice. The tints of the particles is, at the same time, altered greatly—the expansion of the mass is also very considerable, its bulk, in a short time, increasing to nearly two and a-half cubic centimetres, and the particles losing their individuality, seem to form together, and form a mass almost without interstices. By preparing mixtures of chicory and coffee in different proportions, it was found that the first sinks rapidly, while the latter remains suspended for a considerable period.

ON A NEW TEST FOR HYPOSULPHITES. BY M. CAREY LEA.

When a solution of ruthenium is rendered alkaline by ammonia, and boiled with hyposulphite of soda, it gradually assumes a rose colour, which passes into carmine ; with strong solution, the colour is so intense as to be almost black ; when diluted, the shade is magnificent, rivalling the analine red in richness.

A solution containing one-four thousandth of hyposulphite gave a clear rose red.

One containing one-twelve thousandth gave a well-marked pink liquid.

One containing one twenty-five thousandth gave a salmon colour.

PREPARATION OF PURE CORROSIVE SUBLIMATE.

When this salt is prepared by the action of sea-salt on sulphate of mercury, it is often mixed with calomel in consequence of mercurious sulphate. This formation of calomel is avoided by sublimising in a current of hydrochloric acid—$Hg^2\ Cl + HCl = 2\ Hg\ Cl + H$. The author treats ten parts of mercury by twelve parts of sulphuric acid, at 66°, until the residue becomes grayish, when he mixes the latter with nine parts of salt. There is then an excess of sulphuric acid, which gives rise to an excess of hydrochloric acid. The sublimate is so compact that it does not contain any hydrochloric acid.

COMMERCIAL SPECIMENS OF JALAP.

Mr. Southall gives a table of analysis of jalap root placed against their commercial value, *i.e.*, market price :—

Jalap tops vary from 5 per cent. of resin (4d. per pound), to 12 per cent. (5d. per pound.) Tampico jalap, from 9½ per cent. to 33¾ per cent. (10d. to 2s.) Vera Cruz, 15½ per cent. to 23 per cent. (value 4s. to 4s. 10d.) The commercial value of jalap imported from Tampico, is much inferior to the kind imported by way of Vera Cruz, but an average of seven samples of each kind here analysed, show that Tampico is richer in resin than the Vera Cruz ; the average in the one case being about 22 per cent., and in the other 17½ per cent.

The author has made an experiment on the purgative effects of the two varieties, and found them much the same. The resin from Tampico jalap is somewhat darker than that from the Vera Cruz variety, and has a distinctive peculiarity of smell, but I have not discovered any difference in chemical character.

The "Journal of the Chemical Society" contains an interesting paper by Dr. Stenhouse, "on the Action of Iodine on Picric Acid."

The *Chemical News* for Sept. 13, contains some interesting extracts, taken from Professor Tindall's discourse "On Matter and Force." The lecture was not addressed to the members of the British Association, although given at the late meetings at Dundee, but was given to the working men, of whom nearly 3000 were present. It is described as the most eloquent address which this gifted orator has ever delivered.

In the same number will be found a "Note on Messrs. Wanklyn, Chapman and Smith's Method of Determining Nitrogenous Organic Matters in Water," by Dugald Campbell. This contains some strictures upon a paper communicated by those gentlemen to the Chemical Society (June 20.) Mr. Campbell being an authority upon the analysis of water, his paper possesses more than ordinary interest.

SOLUBILITY OF SULPHATE OF LIME.

Mr. A. H. Church communicates a note to the "Laboratory" (14th September), in which he states that the solubility of sulphate of lime depends upon the temperature of the water, presence or absence of carbonic acid, physical condition of the salt. Thus, one part of crystallized gypsum requires 445 parts of water at 14° C. for solution, and only 420 parts 20°5 C. Carbonic acid rather diminishes the solubility.

The "Pharmaceutical Journal" contains a fourth contribution on *the Sublimation of the Alkaloids*, by William Guy.

Mr. Walter Weldon has read an important paper on a *New Manufacturing Process for the Perpetual Regeneration of Oxide of Manganese used for the liberation of Chlorine.* If such a process can be practically worked, it will, of course, revolutionise the manufacture of chloride of lime, and such substances that are dependant on the economical production of chlorine. His process simply consists in adding an equivalent of lime to the still liquid, which consists of protochloride of manganese. Air is then blown through this mixture (which then consists of chloride of calcium and protoxide of manganese) until the latter is converted into a higher oxide. It is then allowed to subside, the solution of chloride of calcium drawn off, and the residue is ready to generate chlorine again.

HOMOLOGUS OF HYDROCYANIC ACID.

Dr. Hofmann has sent some communications of importance since the end of the session of the Royal Society, and which appears in the "Proceedings." They are on a new series of bodies homologous to hydrocyanic acid. There are three communications, which are too long to be quoted here, but which will be read with great interest by those interested in organic chemistry.

BURGUNDY PITCH.

In a paper communicated to the British Pharmaceutical Conference, Mr. Hanbury describes the characteristics of Burgundy pitch.

1. True Burgundy pitch is the melted and strained resin of abies excelsa, D. C.

2. An artificial compound is usually sold in lieu of it both in this country and on the continent.

3. True Burgundy pitch differs palpably from the artificial, and may be easily distinguished from it.

The colour of the artificial article is usually more brilliant than that of the true Burgundy pitch. Its odour is, however, weak and hardly aromatic. It is not so soluble in alcohol of ·838, for although the true is not wholly soluble, it only leaves a small amount of fine white flocculent matter. When the true pitch is placed in contact with double its weight of glacial acetic acid in a vial, it is dissolved, with the exception of a small amount of flocculent matter. Similarly treated, the artificial forms a turbid mixture, which soon separates into two layers—a thick oily liquid above, and a bright solution below.

UNIVERSITY OF LONDON.—A special meeting of convocation was held last Wednesday for the purpose of accepting the new charter which has been granted to the university to enable them to institute examinations for women. The chair was occupied by Dr. Storrar, who said that the business of the meeting was merely of a formal character, as at a meeting of the senate held on the 23rd of October last they received the supplemental charter to be brought before convocation that evening and accepted it. He felt it to be his duty to call the present meeting, and as no notice of motion or amendment was given, he presumed that the decision of the senate would be ratified. On the motion of Mr. Charles, seconded by Dr. Sibson, the report of the committee on the supplemental charter was accepted. The chairman then moved that convocation accept the supplemental charter, dated the 27th day of August, 1867, which had been granted by her Majesty to the university. After some discussion, the motion for the acceptance of the supplemental charter was put and carried, and the proceedings terminated.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 27, 1867.

THE ENGLISH POOR-LAW MEDICAL SERVICE.

DR. OPPERT, in the letter we inserted last week, expressed himself in a sense unfavourable to permanent appointments in the Poor-law Medical Service. He does not appear to be aware that, with few exceptions, Medical Officers, like all other Union Officers, are permanently appointed already. We simply contended that there should be no exceptions to the rule. The state of the case is as follows :—Prior to the year 1855, the Boards of Guardians had the option of appointing their Medical Officers for life, or for a limited period, but in that year the Select Committee of the House of Commons, appointed in 1854 to consider the mode in which medical relief was administered to the poor, recommended that "every Medical Officer to be appointed after the 25th of March, 1855, should continue in office until he may die, resign, or become legally disqualified to hold such office, or be removed therefrom by the Poor-law Board." The Poor-law Board, with a view of giving effect to this resolution, issued a General Order on the 15th Feb., in the same year, together with a Circular Letter, in which they remind the Guardians that the Order had the effect of placing the *Union* Medical Officer upon exactly the same footing as every other Union Officer—an arrangement which more than half the Boards of Guardians throughout the country had voluntarily adopted already, not only without practical inconvenience, but with real advantage to the administration of the Poor-law. For some reason or other, or, perhaps, for no reason at all, the General Order in question was not issued to the parishes in which the Poor-laws are separately administered, the guardians of which retain the power of electing those officers for limited periods, if so minded. It appears that there are, in the whole country, 600 unions, employing some thousands of Medical Officers, all of whom, appointed subsequent to the 15th of February, 1855, enjoy permanent tenure of office. There are only thirty-six separate parishes (excluding from the calculation a few places under local acts). But of this number no fewer than twenty-four are included in the metropolitan district. It follows that a large number of the Medical Officers of the metropolis, to whom permanent tenure of office is a vital condition of security, hold office at the will of the guardians; and are, thereby, placed in a position which renders the discharge of some of the most important duties of their situation perilous in the extreme to their own interests, and we need hardly say that any neglect of such duties may be attended with grievous ill consequences to the sick poor. The Metropolitan Poor-law Medical Officers' Association contends—and we quite agree with them—that the parochial Medical Officer should be placed upon exactly the same footing as the *Union* Medical Officer. How necessary this is, is well shown by the case of the late Senior Medical Officer of St. Pancras, upon which we recently commented. This gentleman, less than a year ago, threw up a private practice to take a *parochial* medical appointment, and, from mere caprice, as it would seem, has just been dismissed by the newly constituted Board of Guardians of that parish. Had he been a *Union* Medical Officer, his position would have been secured to him by the General Order referred to. At the recent quarterly meeting of the Medical Officers' Association,* the President, Dr. Rogers, one of the leading Poor-law medical reformers, expressly stated that, but for his permanent appointment, he would, on account of his services to the sick poor, have long ago been dismissed by his Board ! Our correspondent is, we believe, equally wrong in his supposition that Medical Officers are accustomed or permitted to hand over their poor patients to irresponsible deputies. Nor is he more correct in stating that the appointments are few and valuable. As we have already stated, the appointments may be counted by thousands, and, with one or two notable exceptions, they are much under-paid. As an instance of this, we may mention, upon the authority of our contemporary, the *Poor-law Chronicle*, that the Guardians of St. Pancras parish have just appointed a M.D. of the University of London as Resident Medical Officer of their infirmary at an annual salary of £200, while they pay the master of their workhouse,† an ex-sergeant in the Guards, £250. We are glad to observe that the Medical Officers' Association have taken up this question of remuneration upon unassailable grounds; but we consider that it yields in importance to the question of permanency of appointment, which is one that affects the honour and dignity of the entire profession.

SEA-SIDE DRAINAGE.

IN our number for October 30, we alluded to the drainage arrangements adopted at St. Leonard's and Hastings. We then explained, so far as our readers are interested in the points, the course that had been pursued, but we must once more assure our correspondents that we have no intention whatever of mingling in any local disputes, since we are well aware that our readers throughout the country could not be expected to understand them. Nothing can be more to our taste than to find the cause of Drainage Reform progressing, and wherever we find that a satisfactory scheme has been adopted we shall be pleased to give publicity to the facts, for we know of no one item more important to enable professional men to judge where to send their patients, than the state of the drainage.

St. Leonard's, as we have already stated, completed its works last July, and the scheme has answered fully the expectations of the inhabitants. The filth of the town no longer pollutes the beach, which we are informed on every hand is in the most satisfactory sanitary condition.

The works at Hastings which will, we hope, soon be finished also, are of an equal importance to the public at large, and to the profession. The first attempt to drain

* See MEDICAL PRESS AND CIRCULAR for November 6th.

† There are three Resident Medical Officers for the Workhouse and Infirmary of St. Pancras. The other two receive £100 per annum each !

Hastings was in 1856 and '57, at a heavy outlay for the town, which answered at the time the expectations of the inhabitants, but before long a cry arose that the bathing was injured by the discharge of the sewage into the sea, at the Queen's Hotel and Warrior-square. The iron culverts conveying the sewage extended some 60 feet into the sea at the lowest tide, as most visitors well remember. A strong feeling was expressed by the ratepayers that their town should be perfect in a sanitary point of view, and the Local Board of Health ordered a fresh survey to be taken, with the view of dispensing with these outlets. Accordingly, plans were laid before the Board, and adopted in March 1866 at a probable cost of £24,000. They consisted principally of one main drain along the whole line of frontage of the borough, about 2¼ miles, intersecting every other drain—commencing westward with a fall of 7 feet per mile to the Albert Memorial; from thence to the tank a fall of 4 feet; the bottom of the tank is 5 feet 6 inches above low water at neap tides; from the tank the sewage is conveyed in a 4 foot cast-iron pipe to Ecclesbourne Valley, and from thence in a southerly direction is discharged 800 feet out in the sea; penstocks are fixed at Warrior-square, and the Albert Memorial Tower, for flushing purposes, which can be filled at high water if thought desirable, and discharged at pleasure for flushing the sewer and tank. These penstocks also carry off the storm water of the adjoining valleys. The discharge of the sewage takes place when the tide is flowing eastward in order that it may be carried away from the town.

The tank will contain 1,500,000 gls., which can be discharged in one hour and a-half. But besides this plan for removing the sewage in its entirety, means are in course of preparation for cleansing and deodorising the sewage water, and discharging it into the sea only after this process. Without entering into needless detail, it may suffice to state that to effect this object, a smaller tank is formed within the large one we have mentioned, through which the whole of the sewage is made to pass, and in which the solid matters are deposited and deodorized, and the water filtered and purified. In the next stage of the process the solid matters are dried, separated from the sand and road grit, and, with the addition of ammonia obtained from the liquid sewage, compounded so as to form a valuable portable manure. By this process the bulk of the manure made from town sewage is so reduced, that it is hoped it will be rendered available at a distance from the works without incurring heavy expense for carriage. The machinery for the deodorizing works is in a very advanced state, and will be ready as soon as the tank now in course of erection shall be completed. Should it prove moderately successful, the system may possibly be found available for other towns.

In speaking of the sanitary works of Hastings, we must not overlook a small steam-engine which the Board of Health have erected for the purpose of pumping water from the sea, and forcing it to all parts of the town, so that the water-carts can be filled in two and a half minutes, without having to go any distance for the supply. This, in the summer months, will, it is hoped, harden and bind the surface of the roads, thus preventing dust, besides which, it may act as a deodoriser. It is also intended to flush the smaller drains, but as the fall to the intersecting main sewer is considerable, it is rarely used for that purpose.

Notes on Current Topics.

QUARTERLY RETURN OF THE REGISTRAR-GENERAL FOR SCOTLAND.

The number of deaths recorded in Scotland during the third quarter of the present year was 15,106, being 19 deaths per 1000 of the population, though the proportion varies in the town and country districts. In the former it amounted to 22·2 per 1000, while in the latter it reached only 14·5, but in the aggregate it was about the average rate of the quarter. The births registered in Scotland during the same three months were 27,888, the proportion per 1000 of the population being 35·1, which is considerably above the average, as it gives one birth to every 28 persons. The birth-rate also, as well as the death-rate, varied in town and country districts. In the former it was 38·3 per 1000, but only 31·4 in the latter. By comparing these figures it will be found that the increase of population, or the excess of births over deaths, was 12,782; though, for a true estimate, it will be necessary to reckon the number of emigrants, which was 4511, and which reduces the surplus population to 8217. The marriages follow much the same order, the whole number being 5047 or 6·3 per 1000 of persons living, which was slightly above the average of the same quarter in the ten previous years. Here also we find the same difference in numbers between the town and country districts as in the case of births and deaths, the proportion being 8·3 per 1000 marriages in the one, and only 4 per 1000 in the other. The mean temperature of the quarter was 55·2 deg. Sometimes it rises so high as to produce bowel complaints, but when this is not the case the mortality of this part of the kingdom as a rule decreases during the summer half-year. The present season was no exception. Thus, in June, the mean temperature was 54·3 deg., and the daily deaths were 174. In July it was 54·8 deg., and the daily deaths 175. In August at 57·4 deg., the daily deaths were 160, and in September with a mean temperature of 53·4 deg., the deaths each day ranged 157. On the whole the public health for the quarter was satisfactory. Diseases of all kinds were mild in aspect. There was no prevalent epidemic, and fever declined in severity. The few cases of cholera which occurred were isolated, and the infliction nowhere epidemic. There were also but few cases of small-pox throughout the country whence it may be presumed that the Vacccination Act is producing its good and intended results.

THE SPECTRUM OF BELLADONNA.

Mr. H. C. Sorby, F.R.S., has recently brought forward a new mode of detecting the presence of belladonna, and its allied fruits, being, in fact, an extension of the use of the spectroscope, to which he has devoted much attention. Mr. Sorby finds that vegetable colouring matters can often be easily distinguished from each other, even when only minute quantities are to be obtained for the experiment. The practical applications of such a fact as this will, no doubt, be very numerous. It is, however, in toxicological investigations that this method demands our notice. Hitherto the detection of Belladonna poisoning has been unsatisfactory. The best evidence was in the form of the seeds, but these could not always be found. Mr. Sorby proposes to employ, as a test, the remarkable nature of the spectrum of the colouring matter, when a little carbonate of soda is added to its solution in water. This spectrum

differs altogether from that of the colouring matter of any of the fruits usually eaten. The same colouring matter is, indeed, found in the fruits of some allied plants, but this is not likely to lead to error. Should a single seed be found, no doubt could remain, since the seeds of allied fruits are very different. Mr. Sorby finds a satisfactory result may be obtained from a small fraction of a single berry.

THE PUBLIC HEALTH.

The last return of the Registrar-General shows an increase in the mortality of most towns, due to the greater fatality of diseases of the respiratory organs. The annual rate of mortality for the week was 25 per 1000 in London, 24 in Edinburgh, 23 in Dublin, 24 in Bristol, the same in Birmingham, 32 in Liverpool, 31 in Manchester, 27 in Salford, 28 in Sheffield, 24 in Leeds, 28 in Hull, 24 in Glasgow, and 28 in Newcastle-on-Tyne. In the 12 large towns of the kingdom the rate was 26.

The deaths registered in London during the week numbered 1457. This is less by 98 than the estimated number. There were 184 deaths from phthisis; 192 from bronchitis, and 124 from pneumonia. There were 284 deaths from zymotic disease, as against 254 in the preceding week. The deaths from small-pox numbered 17, from scarlatina 37, from whooping-cough 32, from typhus 36, from diarrhœa 17, from measles 57.

Zymotic diseases have increased in Liverpool, and scarlatina continues to prevail in Birmingham and in parts of Manchester.

The highest point reached by the thermometers at Greenwich Observatory, was 59·8 Fahr., the lowest 33·3. The entire range of temperature for the week was, therefore, 26·5 degrees.

SEWAGE MUD AT BARKING REACH.

It was stated in the House of Commons, in reply to a question, on Thursday evening, that early in the summer a vessel grounded in Barking Reach, at a time of tide when the accident could scarcely have arisen from lack of water. A survey was ordered by the Conservancy Board, the report of which, presented on the 10th of June, states that there were large accumulations of mud, in some places to the depth of 6 ft., off the main drainage outfall. Some of this mud was sent to Dr. Letheby, and an analysis made by him, the report of which is dated the 24th of June, left no doubt in his mind of its being composed in a great degree of sewage in a state of decomposition. On the 25th of June a communication was made by the Conservancy Board to the Metropolitan Board of Works, to which a reply was sent on the 11th of November, stating that the Board had acted in obedience to Acts of Parliament, and that it was the duty of the Conservators to remove the shoal. On Monday, the Conservators considered the report of their engineer on the subject, and measures are to be at once taken.

HOSPITAL FOR CONSUMPTION AT VENTNOR.

It is pleasing to find that measures are on foot for the establishment of a hospital for the consumptive at Ventnor, in the Isle of Wight. The excellent nature of the climate of the undercliff of this island, as a resort for the phthisical, is now well recognised and established, and it will be no small boon to the poorer members of the community to have a chance given them of trying the curative resources of a residence in so pure and healthy an atmosphere.

The hospital will, moreover, afford good opportunity of advancing our knowledge of the climatic resources of England in pulmonary affections, and will, we fully expect, tend to prove that it is not so very essential for an Englishman, once pronounced by the doctors to be comsumptive, at once to pack up and leave his native land as if no spot in the British Isles could be found where the air was fit for him to breathe.

Five acres of land are to form the site of the proposed hospital, and it is to be on the cottage principle; this is a great point, as it will be the means of avoiding the massing together of a number of invalids in all stages of pulmonary disease under one roof. No patient so imperatively demands a pure unpolluted air as one diseased in the lungs, and at the same time there are none who contaminate the air of a hospital or dwelling so much as those whose lungs are ulcerated, or excavated by pus secreting cavities.

We believe Dr. Hassall to be the originator of the Ventnor Hospital, and we most thoroughly wish him and his distinguished coadjutors, Viscount Eversley and Sir Lawrence Peel, every success in their humane and promising enterprise.

THE MERCHANT SHIPPING ACT.

Much attention is being bestowed on the details of this Act, which comes into operation on the 1st of January next, and from which some amelioration of the condition of the sailor is anticipated. Mr. Thomas Gray, Dr. Dickin, R.N., and Mr. Harry Leach are engaged in making the arrangements to be carried out by the Marine Department of the Board of Trade. We have no doubt that these gentlemen will organise everything in the best possible manner. The following are the most important provisions to which their attention is directed:—1. The publication and legal adoption of an amended scale of medicines and medical stores suitable for seagoing ships. 2. The authorisation of a book or books containing instructions for dispensing the same. 3. The arrangement of a system whereby all lime and lemon-juice required as ship's stores is to be deposited in a bonded warehouse, examined officially by the Board of Trade Medical Officer, mixed with a certain amount of spirit, under the supervision of Customs' officers, and certified as fit and proper to be used on board ship. And 4. A system of surveying of the crew's quarters, by which all seamen shall have the amount of space prescribed by the terms of the Act.

MRS. GLADSTONE'S CONVALESCENT HOME.

On Thursday last, a meeting was held at the London Tavern in support of this valuable institution. The chief object was to consider whether means could be provided to afford additional accommodation to the convalescents from East London. The room was crowded, and various persons of distinction were present on the occasion. The Lord Mayor was to have presided, but was unavoidably absent. Among the speakers were the Bishop of Rochester, W. E. Gladstone, Esq., M.P., and Viscount Cranbourne, who, in supporting the several resolutions presented to the meeting, eloquently advocated the necessity of such establishments in connection with our public hospitals. It is desired, if possible, to enlarge the accommodation at Mrs. Gladstone's "Home," by providing 100 additional beds, which would require the annual sum of £2400. We noticed the commendable efforts of Mrs. Gladstone when

they were first undertaken, and we again repeat our conviction of the importance of extending the benefits which such retirements may afford to those who could not otherwise obtain them. None know more than the members of our Profession, and especially our Hospital Physicians, the value of quietude and fresh air in promoting a perfect restoration to health. The rich can secure these adjuncts for themselves, but the poor, when dismissed from the hospital, must return to their own squalid and ill-ventilated homes. We hope the time may not be far distant when a convalescent home may be attached to each of our large hospitals in London.

DR. LIVINGSTONE.

Sir Roderick Murchison has received from Dr. Kirk, and handed to the Royal Geographical Society on Monday evening, a letter dated Zanzibar, Sep. 28, intimating that he has seen a native trader who had just returned from the western side of Lake Tanganyika, and who gave a detailed account of his having seen a white traveller in that region. Opinions seem to differ as to the value of this communication.

The following telegraphic despatch was received on the 21st Nov. from Colonel Stanton, her Majesty's Agent and Consul-General in Egypt, by Lord Stanley:—

"Cairo, November 20, 1867.

"A message has reached this agency from her Majesty's Consul at Zanzibar, dated the 28th of September, to the following effect:—

"'Reliable information has reached this of Dr. Livingstone having been seven months ago at Marunga, on his voyage towards the north-east, passing to the west of Lake Tanganyika.

"'Mr. Churchill was about to proceed to the coast to obtain further information.'"

METROPOLITAN TRAFFIC.

The costermongers' grievances have received the prompt attention of the House of Commons. Mr. Hardy has brought in an "Amendment Bill," which was read the first time on Thursday evening, and which will allow that numerous and industrious class still to ply their different trades under the superintendence of the police authorities. We have never heard or seen that they have caused the danger to life and limb which it was one object in the late act to prevent. On the other hand, they are truly serviceable to a large portion of the community, and it would have been a reckless use of authority to deprive them of the opportunity of getting a living honestly and usefully.

CEREBRO-SPINAL ARACHNITIS.

Two cases of this disease occurred last week in the City of Dublin Hospital, in both of which the fatal result ensued. One, a child who was brought in in a state of coma, survived only a few hours; the other was a young man admitted to the ophthalmic ward from the country only two days previously, suffering under an attack of simple ophthalmia. He appeared to be in rude health up to the hour of going to bed, and even the patients in the same ward were not aware that he was seriously ill during the night. In the morning he was found to be comatose, and though, on the administration of stimulant treatment, he lingered for three days, he subsequently died. A post-mortem examination by Drs. Benson and Hewitt disclosed great congestion of the brain, subarachnoid effusion, and violent inflammation about the medulla oblongata.

A MINIMUM THERMOMETER.

We have received from Messrs. Street a minimum thermometer, mounted in porcelain, made by Messrs. Burrow, of Malvern. These makers number every instrument, and have every one tested and certified at Kew, and supply the corrections that have to be applied to the scale readings, as determined at that observatory. The white porcelain seems an excellent substance for mounting. The instrument can be hung up in any suitable spot, and we have no doubt will be found useful wherever it is introduced. We only wish every one who amuses himself with meteorological observations would have his instruments properly tested. We should then have much greater reliability.

TRICHINA SPINALIS.

A subject brought for dissection to the School of Dr. Steevens' Hospital has been found to be a well-marked instance of the incursion of this parasite. The body was that of a man who died in the South Dublin Union, and it presented the appearance of great emaciation; for which, however, abundant cause, besides the existence of the trichinous disease, was found in the lungs, which were full of tuberculous matter. The history of the patient is reported by the Medical Officer of the Union to present no peculiarity.

A NEW MEDICAL M.P.

Mr. Mitchell Henry, who for many years occupied the position of Secretary to the Royal Medical and Chirurgical Society, and Surgeon to the Middlesex, and who retired a few years since from the active practice of his Profession on his succession to an ample fortune, has announced his intention to seek election for the City of Manchester. Mr. Henry contested the representation of Woodstock at the last election, but, of course, against the influence of the Duke of Marlborough's family, had little chance of success. The Profession have held a meeting in Manchester with the view of giving a welcome to the candidature of their brother.

PRESERVATION OF MORBID SPECIMENS.

A Committee of the Pathological Society of London has recommended that morbid specimens which are necessarily kept from one meeting to the next, or for other causes postponed, shall be temporarily protected from decomposition in a watery solution of dry chromic acid, three grains to the ounce, a third of a grain more being added if the acid should be moist.

NEW SCIENTIFIC CLUB IN DUBLIN.

A communication, preparatory to the formation of a new Society devoted to science, has been forwarded to the leading persons engaged in such pursuits in Dublin. This notification emanates from the Royal Dublin Society, and bears the signature of Mr. Stoney, the Secretary of the Queen's University in Ireland, and Mr. Emerson Reynolds, the Keeper of Minerals at the Royal Dublin Society. We quote the details from the circular issued by these gentlemen:—

"It is proposed to endeavour, by a special organization, to supply, as far as possible, the same advantage in Dublin, to those who are engaged upon one group of Sciences—the group of Physcal Sciences, including Physics, Chemistry, and the applications of Mathematics to Physics as in Astronomy, Mechanics, Electricity, and such like, but excluding Pure Mathematics on the one hand, Physiology, Geology, and the

other Natural Sciences on the other. It is proposed to form a small Club, to be called the 'Scientific Club,' consisting exclusively of persons whose leading scientific pursuit is some one of the Physical Sciences, for purposes of inter-communication, and, in some degree, for disseminating information also. The Club is not meant to be in any degree a channel for the promulgation of original matter emanating from its members, but is simply designed to supply to all its members that early information of advances made by others in any branch of this group of sciences which, in London, springs from the unorganized conversation of the learned Societies.

"It is proposed that the Meetings of the Scientific Club shall take the form of Monthly (?) Evening Meetings, on the premises of the Royal Dublin Society—that membership in the Club shall be limited to a very small number, but that guests shall be somewhat freely admitted upon the invitation of the Club, or the introduction of members. That at each Meeting the Minutes of the preceding Meeting be read, after which each member, in turn, and certain visitors, shall give a brief account of any striking discoveries or investigations in the foregoing group of sciences which may have come under his notice since the last Meeting, and that after these communications are gotten through, the Meeting shall resolve itself into a general Conversazione.

"Whenever a more detailed account is desirable than could be given in a few minutes to the Club, it is suggested that it should take the form of a communication to the Royal Dublin Society at one of its evening Scientific Meetings; or, if of general and sufficient interest, that it should be given as an afternoon lecture on the premises of the Society, should this be desired by the Council of the Society.

"It is anticipated that the expenses of the Club will be very small. It is proposed to provide for them by a subscription of £1 at starting, to be followed by further subscriptions when required."

We understand that several gentlemen of the first position in the scientific world have intimated their intention of joining the Club. The restrictions set forth in the programme, if they be definitely adopted, will, we anticipate, prevent the Scientific Club from receiving any extended support. In the first place, the Club is to represent only "Physics, Chemistry, and the application of Mathematics to Physics, as in Astronomy, Mechanics, Electricity, and such like, but to exclude Physiology, Geology, and other Natural Sciences." Secondly, the Club is to consist "*exclusively* of persons whose leading scientific pursuit is some one of these Physical Sciences." Thirdly, the Club "is not meant to be in any degree a channel for the promulgation of original matter." Fourthly, "Membership is to be limited to a very small number," all other persons being admitted only as guests.

OVERCROWDING IN THE CORK UNION.

THE *Cork Examiner* publishes a report from Dr. Callaghan, to the effect that the wards of the union were greatly overcrowded, sixty patients being allocated to forty-three beds. This condition is even better than that reported on the previous board day, when sixty-eight patients were put upon the same accommodation. A special committee has been appointed to investigate and report.

EDUCATION OF WOMEN.

THE Supplemental Charter of the London University, which was last week laid before convocation, contains a new and highly interesting provision for the certifying of proficiency in certain branches of female education. Under the charter, power is taken to hold examinations and confer certificates, but not degrees, in such literary, scientific, and art subjects as the authorities of the University shall think fit. The selection of subjects in which women are to be examined, is not to include medicine, surgery, or anatomy.

THE Editor of the Journal of the Irish Medical Association solicits communications on matters of interest to the Poor-law Medical Officers of Ireland, either in the form of personal information, correspondence, or newspaper reports—to be forwarded to the Honorary Secretary of the Irish Medical Association, Royal College of Surgeons, Dublin.

THE LATE EPIDEMIC OF CHOLERA AT GIBRALTAR.

DR. SUTHERLAND'S report on the mortality from epidemic cholera at Gibraltar, in 1865, has been issued. The disease attacked all classes of the community; and out of an estimated aggregate population of 24,319 there were about 1100 cases, and, on the lowest estimate, 568 deaths. The mortality was 23·3 per 1000 of the whole population—a death-rate which, if it had prevailed in London, would have been represented by 46,000 deaths. The proportion per 1000 of soldiers was 15·6; soldiers' wives, 28·5; soldiers' children, 25·6; civil population, 23·3; convicts, 63·5. Before cholera became epidemic at Gibraltar, it had visited many miles of country, and places in Asia, Europe, and Africa. Unhealthy conditions were present in the town of Gibraltar, the most prominent being overcrowding, bad water, bad drainage, cesspools, dirty houses, dirty habits, and spirit drinking, in reference to which it appears that the cholera carried off all the worst drunkards. All the deaths in Gibraltar took place in houses where the water supply was more or less impure or unwholesome. The barracks attacked with cholera were overcrowded, and the barrack-rooms were inferior either in position, plan, or construction. The drainage of the town appeared so contrived as to fill the houses with sewer air; some sewers were loaded with deposit, and experience has led the Sanitary Commissioners to decide that the present sewers and drains must be destroyed, and the whole system relaid on sound principles. The north front was exposed to dangerous nuisances from slaughterhouses, cattle depôts, boiling-houses, foul beaches, an unregulated burial-ground, accumulations of bones, offal, and superficially buried dead cattle. Dr. Sutherland reports that the population of Gibraltar was unknown, and the actual number of deaths from epidemic cholera also unknown. A system of registration of deaths similar to that in use in England is recommended. The prevalence of small-pox has further induced Dr Sutherland to recommend that provision should be made for efficient public vaccination. During the cholera epidemic, no cases occurred in quarantine among 634 vessels which came from infected ports. The total tonnage arrested was 323,409 tons; the practical result of this great sacrifice was simply *nil*; and in spite of all precautions, Gibraltar was visited by one of the most fatal epidemics on record. The inhabitants have had practical experience of the inutility of quarantine restrictions, and are now incurring a large outlay for sanitary improvements, under the conviction that the best protection against epidemics was the removal of local causes; but, after having incurred the cost of these improvements, the commerce of Gibraltar, during epidemic seasons, will still be at the mercy of States whose faith is in quarantine. Is it not possible to press on the attention of these States the undeniable fact that cholera was lately endemic over a large part of the world; that from time to time it became epidemic; that the only result of quarantine has been to lull people into a false and fatal security, by diverting their attention from the true source of danger, and, therefore, that the only safeguard of nations from pestilence is neither in cordons nor in quarantine, but in works and measures for removing local causes of disease.

OPENING MEETING OF THE SOCIETY OF ARTS.

THE 114th session of this society was opened last Wednesday, when Mr. W. Hawes, chairman of the council, read an address. After referring to the losses the society had sustained during the year, he said two committees had occupied a great deal of time and attention of the council—the food committee and the committee to which was delegated the selection of working men to visit Paris. From a very early period the society had devoted much attention to the supply and quality of the food provided for the consumption of this great city, as demonstrated by the inquiries of its committees, and the prizes it

had awarded. At the present time a prize of £75 offered by Sir Walter Trevelyan for the best mode of preserving meat in our colonies or other countries, so as to bring it here at a price and in a state fit for the food of the people, to which the society would add its gold medal, is open for competition. The other committee to which he had referred had issued a report suggesting that—following the example of the Emperor of the French in 1862—a number of English workmen should be sent to Paris to study the French Exhibition, on the condition that each workmen should write a report, to be sent to the society, on the special industry to which he belonged. A public subscription was invited, the society contributing 100 guineas, the Royal President (the Prince of Wales) 30 guineas, and the Committee of Privy Council £500, and the sum of £1030 was raised, which enabled the society to give assistance to 80 skilled workmen, whose reports will be ready before Christmas. The success of this project had been so marked that the council hoped to submit the reports of another committee just appointed to consider the best mode of continuing the inquiry by working men, into the state of the industries of their competitors in foreign countries generally, the intention being, should funds be forthcoming for the purpose, to send annually a small number of artizans carefully selected to one or more of the capitals of Europe to study the productions of their respective trades and report upon them. Another committee had been appointed to inquire into the best means of encouraging technical education, with authority to convene a conference on the subject. The progress of the educational proceedings of the society during the past year had been most satisfactory. The chairman then expressed his sense of the lamentable deficiency this country exhibited in a branch of education of the highest importance—that of the eye and the taste. He advocated the opening of our museums and galleries at those times when they could take their wives and children, as foreigners did, to see them, and thus enable them to appreciate the beauties of form and colour. The competition for the prizes offered to art workmen had been better this year than in any former years. The number of competitors was 109 against 61, and the quality of the work greatly surpassed that of last year. He next adverted to the Paris Exhibition, remarking that the system of prizes, to which on a former occasion he had objected, had been continued, and produced discontent and injustice. He denied that, in regard to mechanical skill and workmanship, we were surpassed by foreign countries, maintaining that our pre-eminence was still complete, notwithstanding what had been said to the contrary. He expressed the opinion that such exhibitions had been too frequent since 1851, and the hope that, whenever another should take place, it would be one of selected works, and not an indiscriminate collection of all descriptions of products, brought together without reference to quality, variety, and beauty. He trusted that, before the society met next year, they would be able to record the establishment of a museum of science and art in the East-end of the metropolis, as such an institution would be of great value to the artizans residing there. The following prizes were distributed, viz.:—Silver medals to Mr. James Ferguson for his paper "On the Study of Indian Architecture;" to Mr. C. R. Markham, for his paper "On the Tinnevelly Pearl Fisheries;" and to Mr. S. F. Mackie, for his paper "On the Construction of Iron Ships and their preservation from corroding and fouling;" and a gold medal to Messrs Cooke and Wheatstone, for the energy, scientific knowledge, and practical skill with which they had overcome the great difficulties incidental to the successful introduction of electric telegraphy not only in this country but all over the world.

COOMBE LYING-IN HOSPITAL, DUBLIN.

A MEETING of the Governors and subscribers of this institution was held on Friday last to receive the patent of the Royal Charter of Incorporation, and to dissolve the old board of Governors. The chair was occupied by the Lord Mayor.

Dr. Ringland having read the advertisement calling the meeting, laid on the table the patent of the Royal Charter incorporating the hospital. A resolution was adopted that the Charter be received, and that the property of all kinds, with the rights, privileges, duties, and liabilities of the institution be handed of over to the directors and governors under the Charter. The Charter, which was read by the Lord Mayor, authorises the masters of the hospital to examine pupils who have attended practice there for six months, and to issue diplomas to those adequately qualified. A vote of thanks was then passed to the Lord Lieutenant for the interest he had manifested in the institution by recommending the grant of the Charter by her Majesty, and the resolution also contained an expression of the sincere condolence of the governors to the Lord Lieutenant and Marchioness of Abercorn on their recent bereavement.

The Lord Mayor then vacated the chair, and Dr Carroll was voted thereto.

On the motion of Dr. Ringland the thanks of the meeting were accorded to the Lord Mayor for the interest he had taken in the institution.

The Lord Mayor returned thanks at some length, and expressed the gratification he felt at seeing the advancement of the hospital.

The old board then dissolved, and as directors under the Corporation, held their first meeting.

Resolutions were adopted that the Charter be accepted, that a communication be made to the Poor-law Commissioners informing them of the receipt of the Charter, and re-appointing the present officers of the hospital up to the first of January next, until definite arrangements can be made.

The board then adjourned till Thursday next, when the formation of bye-laws and other arrangements for efficiently carrying on the institution will be proceeded with.

CITY OF DUBLIN PRESENTMENTS.

THE PHYSICIAN TO THE DUBLIN CITY PRISONS.

MR. JUSTICE GEORGE sat in the Court of Queen's Bench for the purpose of considering the presentments made by the Municipal Council under the provisions of the Dublin Improvement Act, which transferred to them the fiscal powers of the grand jury of the city of Dublin.

Mr. Justice George observed that the only presentments to which it was necessary for him to direct particular attention were those included in sec. 11, "Salaries to Inspectors and Physicians of Prisons." They were aware that a question had arisen as to the parties who had a right to appoint these officers—the Corporation claiming it on the one hand, and the grand jury of the City of Dublin on the other. They were aware that under the Dublin Improvement Act, all the fiscal powers of the grand jury were transferred to the Municipal Council. Assuming that the grand jury had the power of appointment, the question arose—had they that power with the right of fixing a salary. He found that the grand jury had appointed Mr. William Ormsby to the office of local inspector to the city prisons, and they presented the sum of £300 as a reasonable and proper salary, to be paid to him yearly, for the discharge of his duties. The Municipal Council had appointed Dr. Ryan to the office, and he found from the schedule that they presented what was unquestionably an inadequate sum, £5, as remuneration for his services. The principal question for their consideration was whether with the power of presenting for salaries the power of appointment was indirectly transferred. Now that was not left a moot point, because Mr. Ormsby had applied to and obtained from the Court of Queen's Bench a conditional order for a writ of *mandamus* commanding the Board of Superintendence and their officers to admit him to the prisons, so as to enable him to discharge the duties incident to the office. As the case would thus come before the court, and as he, being one of the Judges of the court, would have to express his view of the law bearing on it, it would be obviously indecorous in him to give any opinion at present upon the question at issue between these two highly respectable bodies, when they had put the powers of the Court of Queen's Bench in operation to obtain a solemn decision as to their respective rights. He should, therefore, with the concurrence of the parties, suspend the consideration of these presentments until after the court should have decided the *mandamus* question, so that the Corporation might have an opportunity of reconsidering the amount of remuneration which they would give.

Mr. Macdonegh said, with respect to Dr. Burne, who had been appointed physician to the prisons, perhaps his lordship might direct the Council to reconsider the amount which they had voted for his remuneration, or, at least, suspend the fixing of the presentment, as in Mr. Ormsby's case.

His Lordship said that he could not say that the two cases stood exactly on the same footing, because the Corporation presented a sum plainly inadequate to the local inspector; but

they presented £150 to the physician ; and the question would arise whether that was a substantial sum. I shall suspend the fiating of the two presentments, reserving full power to the Council hereafter to reconsider the question of salary.

MERCER'S HOSPITAL.

The Lord Mayor stated that there was one presentment which the Corporation wished to increase. There had been an application before them from Mercer's Hospital, and they had since ascertained that they could increase the grant to that most deserving institution. The usual presentment heretofore made was for £200, and the Council wished to increase it by the sum of £100.

Mr. Justice George—I presume there can be no objection to that. There can be no more useful object to which to apply the money.

The presentment was accordingly increased.

MR. MINCHIN'S APPOINTMENT.

Mr. Shaw, Q.C., said there was one part of the presentment for surgeons' salaries in respect of which he had an application to make. It was the presentment for the salary of Dr. Minchin, and he had respectfully to ask his lordship that it be increased to £250. The case of Dr. Minchin was quite different from that of the other two officers his lordship had already been dealing with, because his appointment, although originally made by the Grand Jury, was subsequently ratified by the Corporation of Dublin ; so that there would be no question raised as to his having been legally appointed surgeon, and being now senior medical officer of prisons in Dublin. The usual notice had been given of Dr. Minchin's intention to make the application to increase the amount of salary presented for him. He had now obtained the position of senior medical officer, and he only received the salary allowed to the junior officer.

Mr. Justice George—How much is that ?

Mr. Shaw—That was £150, and it was afterwards increased to £200 by the Council, on account of the onerous nature of the duties.

His Lordship—I would not take it upon myself, in a matter that is within the discretion of the Council, to measure what is the amount of salary, or to alter the presentment to a larger figure; but I will tell you what I will do. Every other item in the section will come under the consideration of the court when deciding who has the right of appointing the officers, and in the meantime, if the matter can be reconsidered by the Council, and if you are not then satisfied with their decision, you can discuss the question before the court.

The Lord Mayor said the Council would have no objection to reconsider the matter.

Mr. Shaw said he was in a position to prove that the Council had fixed the salary at £250.

His Lordship—I now respite the three presentments in section 11, and as soon as the Queen's Bench has pronounced judgment as to the right of nomination, the whole question will go back to the Corporation to consider the matter as regards salaries.

Correspondence.

THE APOTHECARIES' COMPANY OF IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The action taken by the Apothecaries' Company of Ireland against the chemists and druggists of Dublin regarding the compounding of physicians' prescriptions, demands the immediate notice of the profession, and prompt action on the part of the Royal Colleges of Physicians and Surgeons; and such action, to be of any use, must consist in carrying a bill through Parliament to repeal the Act of the Irish Legislature, whereby the Apothecaries' Company obtained a monopoly of compounding. It is admitted that monopolies are always injurious to the public; but, as regards the medical profession, this particular monopoly was of no injury to it so long as the holders of it were duly mindful of the maxim, "Ne sutor ultra crepidam," and did not intrude themselves into the medical profession. As soon, however, and to the same extent that they began to practise, the monopoly became injurious to the profession; and since they contrived to obtain a recognition of their licence as a qualification to practise medicine, through the accidental naming of their company, in ignorance of the real nature of its charter, in the Medical Act of 1858, the monopoly of compounding has become such an outrage on common sense that its continuance could only be vindicated on the plea that it was never enforced. Now, it appears they are about to enforce it, and thereby, after having scrambled into the rank of practitioners to degrade themselves, and, to a certain extent, the profession along with them, into the rank occupied by the pharmaceutical chemist in England. For the question in the public mind regarding our position is, are we a trade or a profession, and, according to the answer, must be the social rank medical men take.

Now, whatever may be the history of the separation of medicine from pharmacy, since the period when disease was quite unstudied, and simples were administered by the rule of thumb, it is clear that, with the present vast development of the science and art of medicine, both in extent and depth, and with the very considerable extension gained by pharmacy, and, moreover, in consequence of the increasing differentiation and specialisation of study and pursuit required by our present high state of civilisation and science, it is clear, I say, that the separation between medicine and pharmacy must every day be growing wider both in study and practice ; the commercial element must more and more be eliminated from the profession, inasmuch as trade and science are wholly incompatible pursuits. If the apothecaries aspire to the one they must give up the other ; and the educational requirements of the company must be brought up to the standard required by other bodies whose licence to practise medicine they claim that their own shall be considered equivalent to. They must not have the right, under the colours of trade, to flood the profession and professional labour-market with men of inferior stamp to the detriment of those of higher class. They claim the right to practise in all branches, and the monopoly of compounding. Let us see what this amounts to. An apothecary, and say a physician, or an F.R.C.S. reside in the same town ; the apothecary practises, and hence is the professional rival of the other gentleman ; they are prohibited by the rules of their order, and probably also by their social position, from supplying medicines ; the apothecary, their rival, may refuse to compound their prescriptions, or charge by a prohibitory tariff for so doing ; and yet he can prevent any respectable and well-instructed pharmaceutical chemist from undertaking to do so ; this will be, in fact, to enforce a monopoly of practice as well as of compounding, and would very soon be adopted with that special object. Viewed in this light it will be seen how imperative it is for the interests both of the public and the profession that this monopoly should be put an end to. The apothecary may then compound, but not have the right to forbid others to compound who are as well qualified as himself to do so ; or he may practise, but not have the right to prevent others from practising who are far better qualified than he is to do so. As to his own social position, it must ever be that of a tradesman until he ceases to compound or sell medicines.—I am, sir, yours faithfully,

ANTI-MONOPOLIST.

SEA-SIDE DRAINAGE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am pleased to find that you are placing before the profession, in your widely circulated journal, the efforts made by the local authorities in sea-side places to perfect the sanitary arrangements of their towns. It is a matter of vital importance to a large portion of the public who, year by year, sojourn by the sea, that they should be informed by their medical attendant as to the sanitary condition of the different health resorts in the kingdom. As Chairman of the Drainage Committee, and a member of the Local Board for the town of Eastbourne, I am desirous of placing before your readers the steps which have been taken by the Duke of Devonshire (a large land proprietor at Eastbourne) and the authorities to perfect the drainage of this sea-side town. The outfall of main drainage of Eastbourne is nearly three miles from the town, it is constructed of 3 feet iron pipe, firmly secured to oak piles. The sewage enters the sea at a point where the main currents of the channel pass at a great velocity, carrying it direct out into the ocean, leaving the bay of Eastbourne entirely free from pollution by sewage—an all important result connected with the purity of the atmosphere of the town, as well as its sea-bathing. A pit is constructed at the extremity of the outfall, in which there are valves to prevent the ingress of the sea, and to allow the free egress of the sewage. From the outfall to the high road, a distance of a little over a mile, the sewer

is so arranged as to act as a reservoir during the rise of the high tide, and by this means the sewers throughout the town are kept comparatively empty, and a good velocity maintained. The main sewer, from the Archery Tavern to the western boundary of the town, is of an egg shape, 3 feet 9 inches high by 2 feet 6 inches wide, and most of the street drains are constructed of Glasgow stoneware pipes. The ventilation, and the flushing of the rivers, have been carefully considered, charcoal ventilators being fixed at frequent intervals, and high ventilating shafts have been erected where practicable; flushing boxes arranged so as to be connected with the Water Company's main, have been fixed to admit of flushing at frequent intervals, and side entrances have been built to enable the town authorities to ascertain the state of any part of the sewer, so that by a proper system of inspection, and attention to the flushing, the whole system of sewers throughout the town can be kept perfectly clean. The houses have been carefully connected to the main sewer with glazed stoneware pipes, and each connection has been properly trapped. The total length of the main sewer is about three miles, and has a fall of 160 feet, and is laid sufficiently below the surface to enable the basement of the houses to be thoroughly drained. The town is supplied with water from the spring of the lower Green Sand. The water is raised by means of powerful machinery to a reservoir about 150 feet above the level of the town, from which the water flows, and the town is supplied under constant pressure. The whole of this great and difficult work has been carried out under the direction of J. R. M'Clean, Esq., Consulting Engineer, and G. A. Wallis, Esq., Resident Engineer. —I remain, Sir, yours faithfully,

CHARLES C. HAYMAN, M.D.

Eastbourne, November 22.

THE EDITOR OF THE "DUBLIN QUARTERLY" AND DR. SINCLAIR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Referring to Dr. Sinclair's statement in one of his letters to Dr. Kidd, published in your last issue, that "Mr. Phelan is not a registered practitioner," evidently implying a doubt that I could do so, I beg to observe that I did not register as a Member of the London College of Surgeons, because I was not in practice when the Medical Act passed, and never intended to be; and because the office which I hold does not *officially* require to be filled by a registered practitioner, nor even by a member of the Medical Profession, though, I believe, its duties can best be performed by a member of it.

I wish to give this explanation, lest others, like Dr. Sinclair, may doubt that I could register. DENIS PHELAN.

THE EFFETE QUARANTINE SYSTEM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Views which have been so frequently propounded in reference to our quarantine system having now been officially recognised, that recognition cannot be made known too generally; for, depend upon it, red-tapism would not have succumbed had not an overwhelming and irresistible mass of evidence been brought to bear upon it.

I refer to the declaration of the Vice-President of the Board of Trade, made in the House of Commons so recently as May 21st, 1867, when he explained to its members "that our quarantine establishments are kept up for no useful purpose whatever, but wholly and solely to satisfy the prejudices of other nations."

Could an admission more full and satisfactory have been made?

In the face of such a declaration, how long will this monster fraud, trick, or whatever may be its proper designation, be continued? The thing must be closely and resolutely watched, and forthwith stamped out of existence.

Will Englishmen longer submit to pay the cost, besides no end of hardships and inconveniences entailed, for the miserable establishments hitherto so fraudulently maintained, on the assumption that the inhabitants of other countries are ignorant and prejudiced? And, will scientific men continue to lend themselves to an imposture by consenting to perform duties which have been proclaimed by a high official of the British Government as worse than for no useful purpose whatever, and thus bring down upon the votaries of science the stigma of being actuated by mercenary motives? Impossible.

Hence, in whatever aspect viewed, the foul thing must collapse, for, as declared by one of our compromising medical journals, "foreigners make it an instrument of official exaction and commercial loss," which, unfortunately, too many can verify. Therefore, an additional reason why ignorance and prejudice should do their utmost to prove a convenient excuse for such infamy, which may prevail for a short period unless honestly and vigorously combated.

The truth having been admitted in high and responsible quarters, the battle is absolutely won, for I am convinced that the day is past when the majority will admit the principle, that evil may be done that good may come. That such a doctrine should have been inculcated or sanctioned by an official of any ministry is a disgrace to our nation, but especially to the world of science, until effaced.—I am, sir, yours faithfully,

EDWIN HEARNE, M.B., F.R.C.S.Eng.

WE are requested to state that Mr. J. J. Merriman and Mr. J. Baxter Langley, M.R.C.S., have resigned all connection with the Reform League.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, only on one side of the paper, and *must be* in the hands of the Printer eight days previous to their appearing.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

Mr. J. Voran.—We do not know any qualified practitioner of the name you mention. The gentleman whose *surname* corresponds is an M.D., M.R.C.S., &c.

Mr. Veale, Devonport.—The numbers have been sent to India, as requested, *via* Southampton.

Brighton.—The omission has been supplied.

Mr. W. Armale, Elton.—Enclosure received, with thanks.

Dr. P.—Your communication will appear, if possible, in our next. Proofs will be sent you in due course.

Hydrocele.—See new series of this journal. Vol. II. No. 46. 1866. By Mr. Haynes Walton.

C. O.—We regret that we cannot assist you in the advocacy of the scheme. The dignity of the profession must have our first consideration.

Dr. Smith.—We have no wish to descend to such petty details.

A. B.—Mr. Bennet's case has been decided. He is but an example of how professional men may be victimised.

A Poor-law Officer.—The Farnham enquiry still "drags its slow length along." We wait for the conclusion before summing up.

Mr. Harry Lobb.—Mr. O'Ferrall returned to Dublin on Monday last.

Dr. Anters.—Fannin and Co., Grafton-street, supply the artificial tympanum, the cost of which is 1s. 2d. free by post.

BOOKS, PAMPHLETS, &c., RECEIVED.

The Liverpool Medical and Surgical Reports. Vol. I. 1867.

Lectures on the Progress of Anatomy and Surgery during the present Century. By Sir Wm. Ferguson, Bart., F.R.S. London: John Churchill and Sons.

The Transactions of the Pathological Society of London. Vol. XVIII.

On the Distinctive Characters of External Inflammations, &c. By J. H. James, F.R.C.S. London: John Churchill and Sons.

The Physiology of Man. Vols. I. and II. By Austin Flint, M.D. New York: Appleton and Co., Broadway.

Kirke's Handbook of Physiology. Sixth Edition. By W. Morrant Baker, F.R.C.S. London: James Walton, Gower-street.

Journal de Medecine de Bordeaux.

The Fourteenth Annual Report of the Rescue Society. London.

Des Bains D'Air Comprimè. Par Dr. Oskar T. Iandahl. Stockholm.

The following Newspapers have also been received:—The Wellington Independent—Hastings Chronicle—Sheffield Independent—The Standard (marked)—Southampton Times—The Spectator—Sunday Gazette — London Review — Public Opinion — Bombay Gazette — Holborn Journal, &c., &c.

APPOINTMENTS.

The following appointments have recently been made in the Medical Department of H. M.'s British forces in India:—

BLECLEY, T. M., Surgeon, B.A., M.D.T.C.D., L.R.C.S.I., from the 46th Foot to be Secretary to the Inspector-General of Hospitals in Bengal, vice Staff-Surgeon H. M. Webb, L.R.C.S.I., whose term of service in India has expired.

SUTHERLAND, Robert, Assistant-Surgeon, L.R.C.S.Ed., from the 8th R. I. Lancers, to be Statistical Officer to the Inspector-General of Hospitals, Bengal, vice Surgeon-Major A. D. Home, V.C., C.B., 35th Foot, ordered to England with his regiment.

The emolument of the former appointment is £1440 per annum, and of the latter £925 per annum.

VENOUR, Wm., Staff-Aissistant Surgeon, M.R.C.S., has been appointed Secretary and Statistical Officer to the Inspector-General of Hospitals in Madras, and Assistant-Surgeon H. R. L. Veal, M.D., from the Royal Artillery, to the same post in the Bombay Presidency.

The latter are new appointments, only tenable by Assistant-Surgeons and worth £1200 per annum

DEATH.

SANSOM.—On November 20th, at 29, Duncan-terrace, London, W., Marie Rosalie Agnes, daughter of A. Ernest Sansom, M.D., M.R.C.P., aged 2 years and 3 months.

Lecture.

CLINICAL LECTURE ON A CASE OF FRONTO-TEMPORAL NEURALGIA,

ATTENDED WITH CEREBRAL DISORDER.

By C. HANDFIELD JONES, M.B.Cantab., F.R.S.,
PHYSICIAN TO ST. MARY'S HOSPITAL.

M. A. C., ÆT. 25 years, single, admitted October 8th, 1867. On admission, the chief feature of her condition was stupor or semi-coma. She could be induced, with some difficulty, to answer questions, but it was slowly and reluctantly, and not by any means always rationally or coherently. We understood from her mother (I believe) that about ten years ago she had a fall, and hurt her head, and since then at intervals she had had violent pains in her head, with sickness. During the last few days she had been delirious or wandering. Face pale, tongue coated; pulse 84, soft and weak; urine slightly acid, not albuminous; deposits phosphates when boiled, and lithates when treated with nitric acid. No spots on abdomen. Pupils rather large, about equal. Left lower eyelid is congested; left temple seems rather swollen.

She was ordered two morphia-dressed blisters, one to the forehead, the other to the left temple, and extracti cannabis indicæ gr. ½ *ter die*; sherry 4 ounces.

I may introduce here the account of her previous history, which was kindly furnished me by Dr. Bastian, although I did not receive it till about the time of the patient's discharge from the hospital. "M. A. C. came to live with us eight months ago; was then very anæmic and delicate-looking, and continued so all the time. She had two attacks while in our service, in addition to the illness for which she entered the hospital. The first commenced soon after she came, and lasted nearly a week, the predominant symptoms being intense pain in the left frontal region, with loss of appetite, but no feverishness or impairment of mental faculties. The recovery was pretty sudden. About three months afterwards she had another attack, which was rather more severe, but quite of the same character. She seemed to get much relief on this occasion from potass. iodid. gr. x. doses, and after regaining her usual state of health she took perchloride of iron in a bitter infusion for some weeks. During all this time the catamenia had been regular. No headache was complained of to Dr. Bastian in the interval between this attack and the one for which she was admitted into hospital, though her fellow-servants say that she did suffer from it at times. The third attack commenced on October 3rd, in the usual way, with intense pain in the left frontal region, loss of appetite, cool skin, furred tongue, but rather quick pulse. Two days later her appetite became much worse, and she became slightly incoherent for the first time. Only some wine and beef-tea were taken on this and the following days. The bowels had been well opened by medicine, and I again gave her the iodide of potassium, with an occasional dose of morphia. The left eyelid about this time became red, and slightly swollen, and there was increased lacrymal secretion. The next day she was decidedly more incoherent and rambling in her answers to questions, though she seemed to suffer less from the pain. Both pupils were dilated, and almost insensible to light, and continued so.

"On October 7th she was in a dull, almost semi-comatose condition: made no particular complaint of pain, but was quite incoherent in conversation."

12th.—Some slow but gradual improvement has taken place. Zinci valerianatis gr. ij. + extr. cannabis indicæ gr. ½ in pil. *ter die*.

14th.—Is very much better; looks brighter; eyes more lively. Says she cannot tell persons' names, though she knows them. At least this is what I understand her to say. Aspect tranquil. Broth diet.

16th.—Doing well. Sherry 6 oz.

22nd.—Improves slowly. Her appetite is poor in spite of nitric acid, strychnia, and cascarilla. Says she has now no pain in head at all. Mistakes pronouns frequently—uses *he* for *she*, and *vice versa*.

26th.—Is still very pale and feeble, mopy, and inapt for exertion. Ferri et quinæ citratis, gr. vij. + tr. nucis vomicæ, ℥ x. + aq., ℥i. *ter die*, omitt. pil.; pt. c. oleo morrh. (ordered eight or ten days before).

Nov. 4th.—Is much better; lips of better colour; is more cheerful and rational in manner. Discharged.

The condition of this patient on admission could not be regarded without anxiety. Severe pain in the head, with a considerable amount of stupor and incoherence, recent vomiting, and a previous history of an injury to the head, with subsequent paroxysms of severe pain, were symptoms which could not but excite apprehension. The left frontal and temporal regions, which were the seat of the pain, were somewhat swollen, and the lids of the left eye redder than natural. I confess my first impression was that there existed some (possibly rheumatic) inflammation of the pericranium, bone, and dura mater, and that this was the cause of the pain and other symptoms. At this time I had not the assistance of the detailed report of her previous condition, which Dr. Bastian kindly furnished me with afterwards. On considering, however, that there was no unequivocal symptom of cerebral mischief, no paralysis of the limbs, inequality of the pupils, irregularity, or slowness of the pulse, no convulsion or fever, and observing the manifest anæmia, I thought it not improbable that the cerebral disorder was but an effect and an extension of the pain, regarding the latter as a neuralgia. In a previous case, I had seen violent pain in the forehead, of apparently rheumatic character, at first complicated with delirium, and subsequently completely absorbed in it, (so to speak,) when it became more intense. Severe retching was also present. The patient was a strong made man, quite temperate. He died in collapse, and at the autopsy the brain was found pale and shrunken, and the heart very flabby. Although wild delirium and stupor are very different symptoms in their outward show, there is no doubt in my mind that the state of brain giving rise to them is, at least, as far as our means of observation can inform us, very similar, and I am confident that could we have looked within the cranium of our living patient, we should have seen no hyperæmia, but the reverse. Taking thus this view, that the pain in the forehead was neuralgic, and that the brain was suffering sympathetically, the indication was to lull pain or homologous disorder, and recreate nerve power. The progress to recovery was steady, but not rapid; her memory continued to be feeble, her mental actions slow and languid, and her general nervous energy considerably below par. Under the continued administration of tonics, she improved very decidedly, and before she was discharged, the nature of the disorder was beyond all doubt. It had, in fact, resolved itself into an ordinary case of anæmia and debility. The swelling of the left side of the forehead and temple, and the redness of the left lids, was no doubt dependent on paresis of the vaso-motor nerves of the arteries of these districts. This has been well recognised by Dr. Anstie, who has seen neuralgia of the face, in several instances, give rise to a condition much resembling erysipelas. Sir Thos. Watson also states in his lectures, that severe neuralgia will give rise "to a moderate degree of inflammation of the part; which become tender to the touch, manifestly vascular, and even swollen a little." It is important that you should remember the possibility of such hyperæmia being associated with neuralgia, as, otherwise, you might be led into the error of regarding the pain as dependent on inflammation. The dilatation and insensibility of the pupils, which Dr. Bastian observed, no doubt depended on the centres of the third pair being rendered paretic, just as the hemispheres were. This case may be instructively compared with those related by M. Notta, Marechal de Calvi, and d'Hurtebise, in which neuralgia of some of the branches of the fifth pair produced paralysis of the third or sixth nerves. Let me remind you, also, of a case of sciatica under my care last

year, in which there was complete motor paralysis of the affected limb, and partial of the detrusor urinæ. In these instances the disorder of a sensory nerve and its centre, extended to and involved certain adjacent motor centres. In the patient whose case we are considering, the hemispheres succumbed, being probably of weaker constitution than in most persons.

I commend this history to your attentive consideration, for I am sure you will meet in future days with similar instances, and I think the views I have expounded to you of the pathology of these forms of nerve disorder, may prove of real service in enabling you to judge correctly, and treat satisfactorily, conditions that would otherwise be very embarrassing. In conclusion, I will put into the form of direct precept the points which I wish especially to emphasize.—1st. Do not be too ready to take refuge in the conclusion that there is "congestion and effusion" whenever you have to deal with cases of threatening head affections. Let the conception of paresis of nervous structure be quite as familiar to your minds as those of hyperæmia, or of structural lesion.

2nd. Remark the tendency which disorder of a nerve has to extend to, and to involve nervous centres, even those of the highest order, as the intellectual. In the two first attacks the intellectual centres remained free, in the third they gave way. I believe that two things have influence in determining the situation of the secondary affection—viz., proximity and debility. The nearer centres are, *cæteris paribus*, most likely to suffer, but if they happen to be notably stronger than more remote ones, the latter give way. There is one case on record where diseased teeth gave rise to paraplegia.

3rd. See in the quality of the brain disorder in our patient a manifest demonstration of the real nature of neuralgia. Her brain was evidently partially paralysed, and her frontal and temporal nerves were, I cannot doubt, in a like condition.

4th. Remember that, as this case shows, mere neuralgia may lead to more serious disorder. It is bad enough to be tortured with pain, but any amount of cerebral disturbance is a much graver thing. To prevent such an evil it is surely well worth a patient's while to adopt a suitable mode of life, and to persevere in taking suitable medicines, and this you ought to be able to convince them of. A country life, and the use of citrate of iron and quinine, till all anæmia and neuralgia are fairly got rid of, must be advised to our patient.

Original Communications.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. X.—TUMOURS.

THERE is, perhaps, no one series of phenomena which illustrate the desiderata of the present state of surgery, or more emphatically impress the advantages deducible from more patient and scientific research than those which are presented by that heterogeneous family of diseases comprised in the general term tumours.

I regret that there is hardly any on which my remarks must necessarily be less complete, or more fragmentary. I wrote some years ago on the subject, and I have no disposition to retract anything I there published. On the contrary, further experience has only tended to confirm the views I then enunciated, and enabled me to speak with more confidence on some subjects than I at that time ventured to do. The view there given was, in a general sense, simply, that the depositions called tumours, however varied their characters, were the result of disturbance in the nutritive forces of the body, whether those were secretive or excretive, and could only be successfully treated by the correction of such disturbance. This has so much the character of a truism as now perhaps to be generally admitted. The question now is, rather whether this correction of the disturbance is a practicable affair, or whether we are still to go on with the present practice, which, in my opinion, tends only to dwarf or obscure the very little of truth that attaches to our proceedings, or too often to render any philosophical enquiry into the nature of those abnormal depositions well nigh impossible.

These diseases, when carefully investigated, are very fruitful in advantage. In the first place, in showing us how defective our knowledge, they strongly suggest the necessity and, in some degree, the manner of improving it. They exemplify the tendency of abnormal depositions to place themselves in the cellular tissue, in the connecting mortar, as I have expressed it, of the building rather than in its essential fabric. Tumours typify, in obtrusive mechanical illustrations, that the observance of the law of determination to surface is *pro tanto* conservative, and how the greater or less departure from it is accompanied *pari passu* with disordered conditions of the body which are suggestive of minus power. If we begin with the simplest form of deposition, I mean by simple, that which is as close as possible to an abnormal increase of natural structure, say fat, and observe from that, as a starting point, the character, site, and other properties of that numerous and heterogeneous family of abnormal depositions up to the so called cancer and other malignant members, we seldom fail to perceive (I do not say always demonstrably) generally unequivocal relations between the general forces of the body and the extent and variety of tissue occupied by abnormal depositions.

In the treatment of these diseases, the physical characters have very little influence on my plan, nor (*were it possible to command* the necessary conditions) on my prognosis. The successful management of these diseases does not, in my opinion, depend on the structure they exhibit, but on the state of organs by which it is accompanied. This is just as true, in my opinion, of one tumour as another, just as true of what are called malignant diseases as of those which are of a more benign character.

Tumours, not of what is called malignant character, may be accompanied by very serious disorders of organs, and diseases of malignant character may in themselves represent so much of remedial compensation as to successfully mask any serious disorder of the various functions, and certainly, for a time, to stave off the necessity of disease. Now I admit that the rule is the other way, and that has blinded people, as I believe, to the real existence, and what is more, the real importance of the exceptions. These exceptions are important, because I believe the foregone conclusion, that they are incurable, has tended to measures which have sacrificed many lives unnecessarily, and materially shortened others; measures which have, in fact, been despairing, as well as illegitimate verifications of the said foregone conclusions. I am perfectly convinced that, under certain conditions, cancer is in some cases a disease within the power of scientific surgery. I do not here allude to certain difficulties with patients, but only such as refer to the nature and relations of the disease. I am certain, from dissection, that cancer exists in some cases without any organic disease of the viscera, and that such a case may, under favourable circumstances, admit of cure. These I shall remark on further immediately. I further believe, that in cases where the result was not attended by an opportunity of examining the body, but where the state of organs had implied considerable suggestions of organic change, that, with appropriate care, a cancerous tumour, in which endeavours at its absorption have not been successful, may be kept so entirely quiet and stationary, as not to shorten the life of the individual. I therefore regard the removal of can-

cerous tumours by the knife (on the grounds usually given), stated in a general sense, as simply absurd, having no justification in reason or *experience*. As regards the former, the removal is only addressed to effects, and too often with very serious aggravation of the circumstances, on which the disease really depends. As a matter of experience, I do not believe that evidence can be adduced in favour of the operation having prolonged life in any series of carefully digested cases; and this, if borne out, is the more impressive, because, so far as I know, the present treatment of cases not operated on is, as the rule, decidedly exasperative of the progress of the disease. I have said above on the "grounds usually stated," because tumours of any kind may require removal from their juxtaposition to parts so important as to interfere mechanically with their functions, or, in the event of increase, render the removal of them dangerous or impossible.

The removal of a tumour may sometimes also be expedient when you have so far influenced it by treatment as to stop its growth. In certain cases, the removal then will save a good deal of expenditure of power, but this, I think, is rarely necessary. Besides other grave objections not relevant to the discussion of the nature of these diseases, the removal by the knife, as well as the usual modes of practice, render the scientific investigation of this disease so well nigh impossible, that it is very rarely that we have the opportunity of knowing the natural history of these diseases, uninterrupted by interferences of which it is next to impossible to adjust the influence on the phenomena. The removal by mechanical measures, scientifically considered, seems to me to find it's only parallel in the treatment of the cattle plague; where we find that the remedy for "stamping out" (is, I think, the term) of an epidemic, is to kill first all those affected by it, and then all that may be unhappily associated with them. Had this plan been pursued in regard to the most destructive of all diseases we know, viz., the small-pox, countless hecatombs of our fellow-creatures would have been sacrificed, with the result of our remaining as ignorant of the nature of the disease as ever—instead of having acquired such knowledge as has enabled us to deal with this frightful malady in a way that, even without the aid of the important discovery of Jenner, it may, with some preparation, be deprived of nearly all its danger, as far as relates to the individual.

In general, malignant tumours have the advantage, to the scientific investigator, that the disordered influences to which the system has been subjected, are easily deduced from the history of the case. I believe I have treated several successfully, the whole having disappeared. I have kept others in check so as I have observed not materially to shorten the life of the patient. One lady died nearly ninety, certainly a long way passed eighty. In this case the tumour had disappeared entirely, and that it was really cancer, we have, in this case, the opinions of Cline, Abernethy, and Sir Astley Cooper; for at one time she had consulted all these eminent men, and the reason against the removal was not from any doubt of the nature of the tumour, but from there being a deposition of a similar kind in the other breast.

I had only a year or two ago a very bad case of cancer of the tongue, which I was pressed very much to publish, but I have something like a repulsion to put forward cases, unless now and then, or connected with that which they illustrate.

A farmer, from the neighbourhood of Monmouth, had a desperately looking cancer of the tongue, for which, both in Wales and in London, he had been recommended to submit to excision. Mr. Mallett, the printer, recommended him first to show it to me. I could not recommend the operation, because the disease appeared to me to extend so deeply as to render it impossible to observe the conditions inseparable from such operations.

He, therefore, was led to place himself under my care, to which I consented, as he promised to be obedient. He then set to work in good earnest, and, in a very few months, wrote to say to his friend how much better he had become. He, however, mentioned that he found now he could whistle to his dog; on this, I desired him to be informed that anything which induced any avoidable motion of the tongue was a violation of one of the most important parts of the local treatment, and that if I heard anything of the kind again, nothing would induce me to have anything more to do with him. These injunctions, reinforced by Mr. Mallett, made him at length implicitly observant of my plan, with the result that he perfectly recovered. The local treatment involved prohibition of all avoidable motion of the tongue. He was not allowed to speak, and hardly to masticate, all his food being reduced in such form as to be taken through the spout of a tea-pot.

It appears to me that the local treatment of cancerous diseases is wrong in a double sense. 1st. It is defective in not sufficiently guarding the surface and its vicinity from all sources of irritation, whether mechanical, chemical, or varying conditions of temperature. It is very difficult to speak confidently of any application to cancer that ever achieves any good; but it is equally certain that almost all things usually employed do mischief. It is by no means easy, without great painstaking, to defend the surfaces without making undue pressure in the neighbourhood. One of the most soothing applications, a bread poultice, is not always good. The actual state of the part should be observed, and if there is no evidence of excessive action in the circumference, evaporation, if too effective, may check any disposition to repair which your general measures may be inaugurating. If our practice were more definite, more positive as to its object, and logical, so to speak, in its administration, we should, from this source alone, soon improve our knowledge of abnormal depositions. The present plans appear to me so simply empirical, that they only serve to thicken the obscurity too often already thrown over the case before we see it, so that I have, when a case first presented itself, frequently to determine the difficult question of how much I might ascribe to the natural character of the tumour, and how much to various modifications, the result of treatment.

As to cancer, the real difficulty results from finding them, as we commonly do, in conjunction with conditions, all so many elements of expended or deficient power. 1st. The persons are usually more or less advanced in life. 2ndly. Often in persons in whom we find evidence of hereditary tendencies. 3rdly. In connection with greatly disordered and too often diseased organs. Then the treatment, both locally and generally, requires a strict observance, which it is difficult to obtain: so that the result is that the case is not cured.

This is, however, a widely different thing from incurable, and by no means justifies that conclusion. We are only responsible, in our profession, for doing the best that our researches may have allowed us, to remove all impediments to the reparative powers of nature. However much we may deplore the influence of acquired habits, the indulgence of anything unfavourable conformable to the requisitions of the case, the natural impatience under treatment which does not satisfy the patient's ideas, or the daily suggestions of those who have no responsibility, we are answerable for none of these interferences; yet, I am satisfied that many a life is sacrificed or shortened to these really extrinsic difficulties. Of the disease called chimney-sweep's cancer, I formerly, in connection with the Finsbury Dispensary, saw it not unfrequently.

In its origin it appears to result from the irritation of soot, rendered, no doubt, infinitely more irritating by combinations, the results of neglect of all attention to personal cleanliness, which was so common with chimney-sweeps. The more complicated results of the combustion of coal seem necessary, as where wood only is present, chimney-sweep's cancer either is, or was, in Dupuytren's time, very uncommon.

I do not attach much weight to the site in which they more commonly occurred, because they are by no means

confined to that part, and because the scrotum and that neighbourhood of the body, favours very much the accumulation of all sorts of irritation, from retained secretion, dirt, &c., on those who are uncleanly. At first it seems local, and if removed, and the habits of cleanliness observed, it does not, so far as I know, recur. If, however, it be allowed to progress, it soon affects the constitution, and I have never seen more fearful destruction of parts, than I have seen under complicated neglect in chimney-sweep's cancer. Under favourable circumstances, it is a curable disease. I had a very clear case of it in a boy, and the late Mr. Lloyd of St. Bartholomew's, had also had successful cases.

In the case presented to me, the disease was on the nates, and the boy was so perfectly clean, that I never thought of his being a chimney-sweeper. The disease, however, was so familiar to me, that I observed to the pupils, "There, now, if that boy were a chimney-sweep, any one would say, that is chimney-sweep's cancer;" when the mother observed, "Oh, sir, he is a chimney-sweep." I used to remove many of them, and the only remark I have to make on that subject is, that whether from the peculiar texture of the scrotum, or the increased activity of the vessels, there seemed to me to be a tendency to secondary hæmorrhage, which suggested somewhat more than usual care in securing small vessels. As many chimney-sweeps escaped, one was disposed to refer the cases of cancer to some general condition favourable to the occurrence. I am, however, inclined to think it probable, that the occurrence or avoidance of those poisonous accumulations, to which the uncleanly are subject, may, could it be ascertained, sufficiently explain the cases, and the exemptions.

The two remarkable cases of vascular tumour in which I for the first time employed a succession of minute setons with success, are the only cases of that kind which have fallen under my observation, and they are to be found in the Transactions of the Royal Medical and Chirurgical Society. I heard some few years since that the infant on whom the treatment was first tried, and of which Sir A. Cooper witnessed the progress with so much doubt as to the result, was alive and well, and grown a fine young woman. Professor Dudley, of Lexington, had met her in that neighbourhood, whither she was accompanying her father, who was giving lectures on microscopic anatomy.

One word on encysted tumours. These are structures which usually exhibit no great vital force, and surgeons are, I think, right in either letting them alone, or removing them. Nevertheless, cases may occur which may render another course preferable, of which the following is an example :—

A lady consulted me, from Scotland, for a fleshy tumour on the back, with a view to have it removed. On enquiring into the case, I found that the tumour was in no way painful or troublesome, and I thought there were objections in her history to an operation, of which I did not see the necessity. I recommended her such treatment as her case suggested, but ordered her not to have any operation until some circumstance should indicate the necessity of it. In some few months the tumour became removed by absorption. Two or three years, I think it might be, after this, she again came to town, in consequence of an encysted tumour on the head having become troublesome. It was not painful, but having grown to the size of about half a moderate sized orange, it was frequently subjected to slight injuries from her comb or bonnet, and there existed an inflammatory blush over the tumour, which had made the cyst and the integuments closely adherent, except in one or two places towards the base. Under these circumstances, and with some previous attention to her diet, and the functions of the various organs, I held aside a portion of the integuments at the base, sufficient to allow me to make a valvular opening, through which I gently evacuated the contents of the tumour, which were partly of a curdly sort of stuff, with some brownish fluid.

I now closed the opening, and made very gentle pressure on the part, but sufficient, as I imagined, to keep the surfaces together, and kept all perfectly still and quiet. The case did well without a bad symptom, and there has been no recurrence of the deposition.

A BRIEF ACCOUNT OF AN EPIDEMIC OF TYPHUS FEVER WHICH OCCURRED IN PORTLAW,

IN THE WINTER OF 1866, AND SPRING AND SUMMER, 1867.

By JAMES MARTIN, F.R.C.S.I., L.K.Q.C.P.I.,
PHYSICIAN AND SURGEON.

AFTER enjoying, for many years, almost an immunity from typhus fever, several cases occurred during the spring and summer of 1866. November setting in warm and wet, and several cases having occurred simultaneously, I concluded that fever would assume an epidemic form amongst us—an opinion well-established by the result. Thinking it right to be prepared, I applied to the Board of Guardians of the Carrick-on-Suir Union (in which union the district is situate) to open a temporary fever hospital, a request which was met with a prompt and liberal compliance.

Portlaw is, for the most part, a newly built town, 334 good and roomy houses having been lately erected by the Messrs. Malcomson, but there are still a large number (259) of thatched cabins, over which there is no control, with back premises, constituting, in almost every instance, a bad nuisance. The population gives an average of about six and a-half to each house, but from motives of economy many were tempted, even in the best houses, to overcrowd certain rooms with lodgers, and from such rooms many of our worst cases came.

Steps were, therefore, at once taken to prevent overcrowding, and to finish off many details about the buildings, which, in the state they were, tended to promote disease. The building set apart for an hospital was an isolated block of four tenements, each consisting of a room on the ground, and an upper chamber; the former were severally 14 + 16 + 9 feet, giving 2000 feet cubical space; the latter had 6 feet of upright wall, and the sloping unceiled roof above, giving 1792 feet of cubical space, and each lighted and ventilated by a window 3 + 4 feet at each side, opening freely on a central pivot.

Doors of communication having been opened when necessary, the lower rooms were allotted, as matron's room, kitchen, nurses' room, and ward for special cases; the upper rooms as wards.

At first, necessity obliged me to put four beds in each of those wards, but I soon found that, with so large a number, recoveries would be retarded, and that there would be much danger to the attendants, the matron and one nurse having been struck down heavily with fever during three weeks that the wards were so crowded. Fortunately three beds in each, and two in the special ward, answered all our requirements during the remaining period that the hospital was open.

The first case was admitted on the 12th November, 1866, and from that until 6th August, 1867, 102 females and 48 males were admitted as follows:—

November,	1866	9	Males.	15	Females.
December,	,,	5	,,	22	,,
January,	,,	11	,,	12	,,
February,	,,	7	,,	18	,,
March,	,,	3	,,	4	,,
April,	,,	6	,,	10	,,
May,	,,	4	,,	12	,,
June,	,,	2	,,	6	,,
July,	,,	1	,,	2	,,
August,	,,	0	,,	1	,,
	Total,	48		102	

Of those, 8 died, and 142 made perfect recoveries. The following table will show the ages in quinquennial periods,

up to 30 decimal periods after, and the number of deaths in each :—

Under 5 years.	7	Recoveries.	0 Died.
5 to 10 „	30	„	1 „
10 to 15 „	27	„	1 „
15 to 20 „	42	„	1 „
20 to 25 „	13	„	0 „
25 to 30 „	9	„	1 „
30 to 40 „	11	„	1 „
40 to 50 „	7	„	2 „
50 to 60 „	4	„	1 „

To this I annex the following table of deaths, with the number of days each case was ill before admission, and in hospital :—

Reg. No.	Sex.	Age.	Complaining before admission.	Number days in Hospital.	Total was days ill.
12	F.	19	8 Days.	4 Days.	12 Days.
13	F.	40	7 „	20 „	27 „
35	F.	15	6 „	8 „	14 „
75	M.	49	8 „	3 „	11 „
109	M.	54	9 „	4 „	13 „
141	F.	26	16 „	3 „	19 „
145	F.	50	6 „	7 „	13 „
147	F.	9	7 „	6 „	13 „

The average number of days each patient spent in hospital, was 18 and one-sixth.

That the epidemic was completely one of typhus is well marked by the fact, that only two cases of pure enteric fever were admitted into the hospital, and that in only four other cases did the enteric eruption of rose spots make its appearance in conjunction with those of typhus. Eighty-three cases were maculated, and a large majority of those showed the measly rash, as well as others in which the maculæ did not appear. In only two cases were maculæ seen under ten years of age.

It was also remarkable how the fever stuck to families until almost every member went through it, notwithstanding considerable, though imperfect attempts, to ward it off by sanitary measures.

One of the two cases of pure enteric fever was the member of a family, everyone of which, father, mother, and five children, were in hospital at the same time—she never showed the symptoms of typhus ; her mother, who died, was a well-marked mixed case. The other members of the family were all cases of pure typhus. The odour of all the patients admitted was to me identical, except in the ten typhoid cases which I could well discriminate, though I could not convey my ideas to another.

Among the seventy maculated cases hyperæsthesia of the skin was a very marked symptom, the slightest touch producing screams of torture. I was greatly struck with the identity of the disease with the typhus of 1838 and 1847, in which years it was epidemic here, as well as with the large number of sporadic cases I have seen in the intervening years. Identical in the general aspect of the patient, the rash, the maculæ, the state of tongue, the exaccibation before crisis, the nature of the crisis, so often followed by profound and prolonged sleep, and the rapid and perfect recovery where no complication existed.

On opening the hospital I was determined to give a full and fair trial to the non-stimulant treatment of Dr. Nichols, of Longford. I certainly carried two very unpromising cases through without either wine or broth, but their recovery was slow and tedious ; four other cases not so seriously affected got through with success, but their convalescence was also unsatisfactory ; on the other hand, in several cases where I tried it for a time the relief and good results which followed the administration of wine and broth were so marked, as to convince me that they were essential agents in the good treatment of typhus, as I have hitherto met it. I have not, however, during this epidemic had to resort to the heroic use of stimulants. In those cases which died I found no good result from pushing them largely, and I generally found that moderate doses of from two to six ounces of wine answered all the purposes I desired of carrying patients over the critical periods of the fever, or acting as a good tonic during convalescence.

The general treatment I adopted was to give, in the early stage, the solution of citrate of potass freely ; after a few days substituting the dilute nitro muriatic acid, or, if there was a tendency to diarrhœa, the sulphuric. I had the patients freely sponged with tepid water, containing a little of Condy's fluid, both night and morning. I paid great attention to free ventilation, keeping the windows widely open day and night, even during the frost and snow of January and February, taking good care to maintain the heat of the patients by means of hot water jars and extra blankets.

When there was much restlessness and absence of sleep in the early stage, I found the application of a few leeches to the temples most useful, and in many cases I gave moderate doses of Evan's Dover's powder with good effect. I look on it as a very valuable preparation. When diarrhœa required a special astringent, I gave Pulv. Cret. aromat. B.P., in doses of from half a drachm to a drachm every four hours, and found it answer remarkably well.

The majority of the cases had the crisis of sleep. In two crisis by urine was most decided, and in some few cases by perspiration. Abscesses formed in two cases, one in the structures about the parotid, and one under the fascia of the occiput—both did well. Three women were pregnant, two in the three months, and one in the fifth, they went through the fever safely, and showed no tendency to abort. The wine I used was Marsalla, which I found a cheap, agreeable wine ; when diarrhœa prevailed I substituted port.

I could not discover that any patient ever had fever before ; indeed, from personal knowledge of the majority, I may safely state that not one of them had been previously affected.

I must here bear testimony to the zealous exertions of the matron and nurses. The latter, though untutored women, taken from the inmates of the poor-house, and unable to read or write, showed a professional zeal about their patients, to which I attribute it, that out of so many cases of intense typhus, and with appliances no way remarkable for their excellence, only one case of decided bed-sore occurred, and that it was unavoidable in this case, I can testify, having closely watched it myself in all its stages.

During the winter several other cases of fever occurred in the district which were not received into hospital; some occurred amongst the higher classes, and it is remarkable that such assumed the enteric typhoid character —owing to this we experienced the loss of one of our few resident noblemen, the late Marquis of Waterford.

I annex a two tables of temperature taken in the hospital with great care. They establish Dr. Grimshaw's remark, that the range of typhus has generally been laid too high.

Mary Ready, æt. 18, admitted Nov. 13; 9th day of illness.

	Pulse.	Resp.	Temp.	Remarks.
10th day	125	25	101·4	Maculated.
Vesp.	132	29	103·0	
11th day	132	36	103·0	
v.	130	36	103·4	
12th day	132	38	102·6	
v.	--	—	—	
13th day	424	40	103·1	
v.	108	40	102·0	
14th day	110	38	101·0	
v.	126	30	102·6	
15th day	104	36	98·6	Good decubitus; maculæ fading.
v.	90	30	98	
16th day	120	32	98·8	
v.	104	36	96·0	
17th day	96	—	98·0	
v.	96	—	98·4	
18th day	96	24	98·0	
v.	92	20	97·0	
19th day	94	20	97	
v.	80	20	982.	

ANASTATIA ROCKILL, æt. 27, admitted Nov. 13; 6th day of illness.

7th day	128	23	104·0	Bronchitis.
Vesp.	120	25	104·0	Maculæ appeared.
8th day	126	24	102·0	Loud bronchitic râles.
v.	126	28	102·4	
9th day	120	27	101·2	
v.	—	—	101·8	
10th day	120	26	102·0	
v.	104	24	102·4	
11th day	90	25	100·2	
v.	96	24	100·2	
12th day	84	28	100·0	
v.	92	36	100	
13th day	84	32	97	
v.	80	30	96·6	Red glazed tongue.
14th day	80	—	96·4	Do. Do.
v.	80	—	99	Do. Do.
15th day	80	26	98·4	Tongue moist.
v.	100	24	99·2	Do. Sleeping.
16th day	80	20	96·4	Do.
v.	88	20	97·6	Do.
17th day	96	32	98	Do.
v.	72	24	97·8	Do.
18th day	82	36	96·8	Do.
v.	76	20	96·6	
19th day	80	30	96·8	
v.	76	20	96·6	
20th day	72	24	98·0	

To convalescence.

RE-UNION OF AN AMPUTATED FINGER.

By WALTER BERNARD, L.K.Q.C.P.

On the 16th of November, Michael Nellis (shirt collar-cutter, aged 19 years), while removing "a cut of collars" from a circular knife impelled by steam, had half an inch cut off the top of the middle finger of the left hand, including the pulp and portion of the nail. The line of separation ran in an oblique direction. I saw him in ten or twelve minutes after. He was depressed, pale, cold, and shivering. I enquired if the piece could be found. In a few minutes it was brought to me dirty, out of some rubbish. Having very gently removed all particles of dust and blood, I replaced the piece and adapted the cut surfaces, the portion of nail attached to the separated part being a guide to perfect coaptation. It has now (November 27th) united throughout, healing near the nail by granulations, the remainder by the first intention. I ascribe my success to the perfect coaptation of the surfaces, warmth, a good constitution, and securing the hand across the chest in order to prevent the finger from being jarred during sleep, and the parts disturbed. I adduce this as an additional case in proof of the prudence of making a trial to secure the re-union of separated parts.

Hospital Reports.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

Dr. FLEMING'S Surgical Clinique.

NO. I.—HERNIA AND HYDROCELE — DISTRIBUTION OF TRUSSES.

On a late occasion we had an opportunity of witnessing the distribution of trusses by Dr. Fleming, for the several forms of hernia which presented at the Richmond Hospital, on one of the monthly applications. A few notes regarding some of the cases brought before him may perhaps prove of interest.

Forty cases (a number exceeding somewhat the monthly average), were examined. Those amongst children were especially instructive.

Case 1.—Was one of vaginal hydrocele of the testicle, on the left side, in a child aged seventeen months. This form of hydrocele Dr. Fleming stated to be frequently mistaken for hernia, and to be not very rare at this early age.

On tapping, the tumour immediately disappeared, and a quantity of fluid was drawn off. This fluid, when tested with nitric acid, was found to be albuminous. Its colour was identical with that from the same form of hydrocele in an adult.

Case 2.—Right scrotal hernia in a child aged three months.

Case 3.—Scrotal hernia on right side.

Case 4.—Scrotal hernia on right side.

Case 5.—Inguinal hernia on right side.

Case 6.—Scrotal hernia on right side.

Case 7.—Scrotal hernia on right side.

Case 8.—Inguinal hernia on both sides; one testicle down; the other not fully descended, but yet capable of distinct isolation from the hernia.

Case 9.—Left inguinal hernia.

Case 10.—Hydrocele of the tunica vaginalis at the right side, in a child aged five months. This was also tapped, and the fluid tested with nitric acid, as in case 1, and found albuminous; colour of fluid also similar.

Case 11.—Left inguinal hernia.

Case 12.—Right scrotal hernia.

Case 13.—Right inguinal hernia.

Case 14.—Right inguinal hernia.

Dr. Fleming directed attention to the greater prevalence of the *scrotal* form of inguinal hernia in the child, and expressed his great doubts as to the absolute congenital character of all such herniæ at that period of life. Contrasted with the same form of hernia (extremely rare, it must be admitted, in the adult), the remarkable isolation of the testicle in the child cannot but attract the attention of the clinical surgeon. This is not so in congenital scrotal hernia in the adult.

The preceding fourteen cases all occurred in young children; of them, no less than nine had hernia on the right side, two on the left side, one on both sides. In two cases, as has been seen, no hernia existed, though orders for trusses for hernia had been given, but the children were affected with that comparative rare disease, infantile vaginal hydrocele of the testicle.

Dr. Fleming pointed out to the class the diagnostic marks of this affection, as distinguishable from hydrocele of the cord on the one hand, and from hernia on the other. He remarked that the tapping of hydrocele in any form in the child is very seldom required, and that it was adopted in the present instances for the purposes of clinical instruction and diagnosis. He never saw it productive of any mischief if carefully performed with a small capillary trochar.

The peculiarities of the several varieties of hernia, as they presented in the adult, were also considered, and reference was made to their ordinary complications. Complications with hydrocele were not uncommon, and were not difficult of detection, but yet, when tapping of the hydrocele was necessary, caution in diagnosis was required.

Dr. Fleming specially directed attention to those local appearances usually present where trusses had been worn, which, in examining for life assurance, should be borne in mind by the surgeons to prevent imposition.

CITY OF DUBLIN HOSPITAL.

CASES OF ONYCHIA MALIGNA, TREATED BY THE LOCAL APPLICATION OF POTASSA FUSA, WITH OBSERVATIONS.

Under the care of Dr. GEOGHEGAN.

THE following cases of onychia maligna, treated in hospital during some years past, are given in greater detail than might otherwise be requisite, in order both to admit of their verification as genuine examples of that disease, and also to enable a just estimate to be formed of the results

of the special mode of treatment, which it is the object of this communication to submit to notice.

Case 1.—A sallow, dark-haired boy of five years. The ungual phalanx of the right thumb is swollen to the size of a small walnut, and clubbed; the surrounding skin livid, tense, and shining. The seat of the nail and the soft parts for some distance around are occupied by a large foul excavated ulcer, the surface of which is of a dark claret colour; it bleeds readily, and is partially covered with coagulated blood. Towards the situation of the base of the nail, the cutaneous margin of the sore forms two elliptical curves, separated by a projection; it is sharp and everted. The discharge being washed away, the surface is seen to be of an unhealthy red, and, towards its distal end, shows patches of cicatrization. The diseased and sound thumbs, measured around the base of the phalanx, shewed $3\frac{1}{4}$ and $1\frac{3}{4}$ inches respectively; the vertical measurement $1\frac{1}{4}$ and $\frac{3}{4}$ inches; greatest breadth of ulcer $1\frac{3}{4}$ inches. It is stated that, under previous surgical care, the nail had been at least partially removed, and strong nitric acid applied.

The sore having been dried, and chloroform administered to the second degree, a stick of potassa fusa was smartly rubbed to the entire surface of the sore, and especially well into the groove for the insertion of the base of the nail. It was also applied for about one-sixth of an inch on the cutaneous fold, which forms the anterior boundary of that groove.

2nd day.—Sore improved; of a much lighter red colour; discharge now purulent; swelling of soft parts around less; skin of semilunar fold to the extent of caustic application—black and dry, as if sloughed. *No slough on the surface of the ulcer.*

4th day.—Sore still better.

6th day.—Circumference of thumb reduced from $3\frac{1}{4}$ to 2 inches. Some remnant of the nail being visible towards the base, the potass was again rubbed into that part.

9th day.—Surface of sore in a state of healthy granulation; touched lightly with nitrate of silver, and strapped with adhesive plaster, guarded by a layer of soft old linen.

One month.—Sore all but healed, a soft opaque nail is forming in front of the semilunar fold; circumference of the base of ungual phalanx is now the same in both thumbs.

Case 2.—A very irritable and rather unhealthy child, had one of its fingers squeezed in a door $2\frac{1}{2}$ months previously to admission. Ungual phalanx enormously swollen and bulbous; surrounding skin purple and shining; a large foul excavated ulcer with sharp edges occupied the back of the phalanx; centre of sore presents a black sodden flexible nail, and yields a very stinking discharge.

The child having been partially chloroformed, potassa fusa was freely applied to the whole ulcerated surface, and also to the semilunar cutaneous fold at the base of the nail—bread poultice; nutritious diet.

3rd day.—Sore has lost its fœtor, and looks improved.

7th day.—Much amendment; surrounding swelling less; a *slough* has separated, leaving a healthy surface; a portion of loose nail at side of sore readily removed by the forceps.

14th day.—Sore granulating well and quite shallow; a little shred of nail at opposite lateral edge removed; sore strapped with adhesive plaster; finger much less swollen; health improving.

One month.—Finger nearly well.

Two months.—Cure complete; phalanx much reduced in size; seat of ulcer now covered by a rough and wrinkled nail.

Case 3.—J. B., a boy æt. 7. The ungual phalanx of the great toe is occupied by a foul ulcer, having a depressed surface of a dark colour, and furnishing a fetid discharge. The soft parts are swollen, bulbous, and of a livid red; a softened ragged shred of nail projects in front of the semilunar fold. The sore has been aggravated by exercise. The disease is attributed to a contusion of the part.

The case was treated for some time by fumigation, with the mercurial candle, as directed by the late Prof. Colles. Under this plan the centre part of the sore cicatrized, forming an isthmus, dividing the ulcer into two separate portions. These latter, however, remained as foul as before. Both were now freely touched with a stick of kali purum—a couple of applications caused them speedily to heal. *No slough was produced*, the sores being merely covered under the action of the caustic by a dark blackish-brown bloody exudation. A very thin rudimental nail, without a free edge, subsequently formed.

Case 4.—A girl of nine years. Dorsal aspect of ungual phalanx of middle finger of right hand presents two foul ulcers separated by a healed stripe; a ragged fragment of nail projects from the proximal end of the sores, which discharges a fetid ichor. The phalanx is much enlarged, red and bulbous. The disease is of a year's standing, and was caused by the closing of a door on the finger. Previously to coming under Dr. Geoghegan's treatment, the sores had been touched with strong nitric acid, and ter chloride of carbon had been applied. Kali purum was now rubbed in as in the former cases.

3rd day.—Ulcers look decidedly better, and soft parts less swollen. In a few days a second application of the potass was thought to be expedient; some days afterwards one of the sores had healed; nail growing, and firm. The other sore which looked glassy, was touched with nitrate of silver, and strapped with adhesive plaster transversely applied. Two subsequent applications of the potass were found necessary. Two months and a half from the commencement of the treatment the cure was complete. *No sloughs were produced by the various applications of the potass.* After the lapse of three months, a nail of nearly natural breadth and thickness had formed.

Case 5.—A boy of about eight years presents well-marked onychial ulcer of right great toe, as described in the four previous cases, the result of a crush by a stone. The discharge is foul and fetid, and shreds of sodden nail are attached to its surface. One good rubbing with kali, including the whole surface, and especially the semilunar fold, and the nail-groove beneath it, caused the sore to heal in a few days. The swelling had also, in a great measure, subsided, and shortly afterwards a new and healthy although thin nail had formed.

Case 6.—A healthy-looking boy of ten years has onychia of second toe of right foot, resulting from the use of a tight shoe; sore boat-shaped; less foul than usual; no fragments of nail visible, but, on application of the kali, the latter was felt to grate over one which was buried in the ulcer. Surrounding integuments vivid red, and, beyond the base of the sore, beset with a few small scattered ulcerations. The sore, and its proximal border especially, well rubbed with potassa fusa.

Next day the ulcer was coated with a dry reddish black matter. Bread poultice.

6th day.—A slough seems to have been produced; sore not as yet healthy-looking.

9th day.—The ulcerative process attendant on the sloughing has opened the joint between the last and second phalanx. Next day, as the ungual phalanx was laid bare on its posterior surface and projecting, it was removed by a touch of the knife.

14th day.—Sore granulating healthily; touched with nitrate of silver, and strapped.

One month.—Sore lanquid; circulation feeble; to have wine.

Six weeks.—Sore nearly healed.

On being visited two and a-half months after the boy had left the hospital, the toe was found soundly healed; its end covered by a cushion of perfectly healthy soft parts, of ordinary volume; a transverse linear cicatrix visible on the dorsal aspect, about half an inch from the end of the toe; movements perfect.

Case 7.—A girl of eight years, tolerably healthy, suffering from onychia maligna of the right thumb. The disease was attributed to her having had the habit of biting the thumb, and picking it with a brass pin. Potassa fusa was applied once at the dispensary of the hospital. Her mother having fallen ill, neglected to present her for further treatment, till two years subsequently.

The back of ungual phalanx, which was swollen and bulbous, was now seen to be occupied by a large ulcer, from the centre of which the bone stood out, denuded of surrounding soft parts nearly to its articulating end. Both the sore and the bone were covered with granulations.

The projecting portion of bone was removed with the cutting forceps, and the terminal and proximal margins of the ulcer having been pared, the flap was folded over, so as to form a sort of cushion for the end of the divided bone; three points of wire sutures were inserted. The apposition was perfect; the granulating surfaces were kept in contact by moderate pressure with straps of adhesive plaster.

Four weeks.—A plump and healthy cushion was the result. After the lapse of some time, the latter had subsided to very nearly the dimensions of that of the opposite thumb; and although about one-third of an inch shorter, the thumb was quite serviceable, the patient using it in stitching, &c.

The disease, of which the above cases furnish typical examples, has been, in consequence of its severity and obstinacy, the subject of a great variety of curative methods. With the exception of the internal administration of mercury, as employed by Wardrop and Cooper, of arsenic by others, and of more tonic and dietetic measures, naturally suggested by the low state of health which often accompanies the disease, local measures have been almost exclusively relied on by those who have studied its treatment. Of the efficacy of the most severe of these, the removal of the matrix including the remnants of diseased nail, there can be no doubt, at least where the eradication has been complete. This method seems however, needlessly severe, involving that summary removal of reparable structures, now often euphoniously termed "conservative surgery."

Next in order of the local measures, come the caustics, amongst which surgeons appear to have relied a good deal on one of little power—the nitrate of silver. Except as supplemental to the previous employment of decisive measures, this salt will unquestionably disappoint expectation in almost all cases. Of the more powerful agents, strong nitric acid applied freely to the "nail-gland"[1] "*to destroy it*," has been recommended by Mr. South. This method, if thoroughly carried out, and with the fuming nitrous acid, will probably prove effective, though at the expense of the matrix. In the few cases which have fallen under Dr. Geoghegan's observation in which it has been resorted to, the results, however, have not been satisfactory. Indeed, the corrosive power of strong nitric acid, as surgically applied, has long appeared to him to be over-rated, its power of coagulating the albuminous fluids of the tissues seeming to impair its penetrative influence.

The cases above recorded tend, in Dr. Geoghegan's opinion, to establish decisively the great efficacy of the potassa fusa. A careful observation of its action has satisfied him that, although the potass, when applied very freely to the onychial ulcer, may cause sloughing, such a result is by no means either necessary for its curative action, nor even altogether desirable in the majority of cases. When applied to the *true skin*[2] (as, for instance, of the semilunar fold at the base of the nail), if the part be previously denuded of its cuticle, or if the caustic be used so as to disintegrate the latter, sloughing will inevitably ensue. Applied by moderate friction for a few moments, however, to the surface of the onychial (or other) *ulcer*, or to that portion of the matrix beneath the semilunar fold, the effect is different. The first and most obvious one, due to the solvent influence of the potass, is the speedy exudation of blood, which is at once converted by chemical action into a viscid brownish-black treacly material. This latter appears to form, in some degree, a protective coating, which prevents the influence of the potass as a corrosive from penetrating to the subjacent parts, whilst, no doubt, the stimulant effect is extended to some depth, and the vital actions of the tissues proportionately modified. The much less energetic effect of this caustic on the surface of an *ulcer*, as compared with that on the *cutis*, is probably also a good deal due to the greater proportionate amount of water present in the former, by which the strong affinity of the potass for that fluid, is speedily satisfied to such an extent as to arrest or much diminish its *corrosive* action. When a slough, however, is produced on the ulcer, it is usually superficial. Such was the fact in case 6, and the opening of the joint is explained by the circumstance that owing to the previous ulceration produced by the disease, the soft tissues covering the posterior aspect of the joint had become much thinned. Such an accident, however, is productive of no bad result, is evident from the satisfactory issue of cases 6 and 7. In fact, onychia occurring chiefly in the young subject, the ungual bone is a very small affair, and when removed, the flexor tendon transfers its allegiance effectively to the neighbouring soft parts, so that motion is preserved. In several cases of periosteal whitlow of the ungual phalanx, in which Dr. Geoghegan had removed the dead bone by the forceps through one of the fistulous openings, a serviceable, if not very sightly phalanx remained—the nail forming a sort of cap on its extremity.

Before the potass is applied to the onychial sore, the surface of the ulcer should be dried by the pressure of a soft piece of rag, and any projecting portions of ragged nail clipped off. If desired, chloroform may be given, but the pain is usually of so short duration, that it may generally be dispensed with. A reference to several of the above cases will show, that although the disease has been, in all its leading features, subdued in a few days after the application of the potass, still the further progress of the now small sore to final and complete cicatrization may be occasionally rather tardy. This, in some cases may depend on local, in others on constitutional causes, and is to be obviated as far as may be, sometimes by re-application of the potass, or again, by local stimulation with nitrate of silver, strict rest in the horizontal posture, maintenance of the temperature of the part by wrapping the members in cotton wool, and generally, by a nutritious diet, good air, wine, and chalybeates.

Cases 6 and 7 sufficiently disprove the generally accepted dictum, that if the bone or joint be engaged, amputation is inevitable. In both these cases the removal of the bone yielded excellent results.

As respects the treatment of onychia by fumigation with red sulphide of mercury, according to the late Professor Colles's method, Dr. Geoghegan's experience of that proceeding is but limited. In case 3, employed for a considerable period, it caused healing of a portion of the sore. The length of time for which it must be persevered in, even where it ultimately succeeds, and the degree of daily attention in the application of the remedy, seem to be drawbacks to its general adoption, and to suggest the use of measures of more rapid action.

As regards the constitutional use of mercury in onychia, given so as to produce ptyalism, (as recommended by Wardrop), and continued till the sore has healed, Dr. Geoghegan believes that this proceeding should be confined to what has been termed syphilitic onychia—a comparatively rare affection, and which is generally nothing more or less than a primary syphilitic ulcer at the base or side of the nail. A case of this nature, the result of impure contact, was treated by him in hospital, three years since, and was

1 It seems erroneous to confine the seat of the matrix to the basic groove, or cul de sac which embraces the nail, as has been done by Dupuytren and some others. The reproduction of sound nail in patches on the surface of the ulcer, as seen in the progress of some onychial sores towards cure, refutes this view.

2 This difference is dependant on structure, and forms the basis of a method which was described by Dr. Geoghegan some years since (Med. Gaz. Vol. I. New series, p. 202.) as suitable to the formation of issues, and which consists in the previous application of a blister to the skin, of the size of the intended issue. When vesication has ensued, the cuticle is to be then gently removed, and the stick of potass made simply to traverse once the denuded surface, no continued friction, as in the ordinary method, being required. Contrary to what happens in the ordinary method of making an issue, the action of the potass penetrates the entire surface at once, and extends, as is shown by the resulting slough, throughout the centre of the cutis. The pain in this method is of much shorter duration than in the ordinary mode of applying the caustic. There is also less of that disparity between the area to which the caustic is applied, and the subsequently greater size of the issue produced.

quite obedient to mercurial friction. Such ulcers can, however, seldom be confounded with onychia maligna, except in the early stage of the latter, whilst, moreover, the latter disease is mainly confined to the young subject.

Several cases of *ingrowing of the nail*, which have fallen under treatment in Dr. Geoghegan's hospital practice and elsewhere, bear out the great value and efficacy of Mr. Colles' method of confining the removal to that portion of the nail which is detached from the matrix. By a little manœuvring, the point of the scissors can be gradually urged to the base of the nail without pain, and, with a good instrument, the section accomplished almost at a stroke. The severe procedure of evulsion of the entire nail, as recommended by writers, may thus be very generally avoided.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

VENOUS NÆVI TREATED BY INTRODUCTION OF BRUCE'S GAS CAUTERY. OPERATION FOR SINGLE HARE-LIP. REMOVAL OF TUMOUR FROM BENEATH THE TONGUE.

By Mr. PORTER.

DURING the week ending November 23rd, the following operations were performed by Mr. Porter :—

Two cases of venous nævi were treated by the introduction of "Bruce's Gas Cautery." The first case was in a male infant six months old ; the disease occupied the inner half of the upper eyelid of the right eye, its colour was dark blue, and, even in a quiescent state, it prevented the eyelids from separating. In the second case the nævus was about the size of a sixpence, and elevated to the extent of one-eighth of an inch, its colour was blue, and it was situated on the left temple of a female child, aged nine months. In both cases Mr. Porter plunged the red hot platinum point into the growths in three different situations, no bleeding took place, and the little apertures were surrounded by minute eschars. The inflammation thus excited occludes the vessels forming the tumour, and the disease, after a few applications of the cautery, shrinks, and withers away. "Bruce's Gas Cautery" consists of two fine brass tubes soldered together parallel to each other, the upper one being a blow-pipe ; to this is attached an India rubber tube about half a yard in length, and having a glass mouthpiece inserted into it. To the under brass pipe another piece of India rubber tubing is fastened, the other extremity of which terminates in an India rubber bag into which gas is pumped from an ordinary burner. On the ends of the brass pipes a little platinum disc is fitted, from which a point of platinum wire projects about half an inch in length, and having the thickness of a fine knitting needle. A small stop-cork being turned so as to permit the gas to issue from the lower pipe, it may be ignited, and then by blowing through the tube attached to the blow-pipe above, the flame is made to act upon the disc and wire ; they become intensely red, in which condition the operator plunges the point into the nævus.

Mr. Porter also operated on a female infant, aged six months, for single hare-lip, complicated with cleft palate. He cut the edges of the fissure in the lip with a pair of scissors, and then brought them together with the twisted suture. We observed that he used insect pins, which had the advantage of being easily cut with a wire nippers.

The fourth case operated upon was a tumour about the size of a large walnut, situated beneath the tongue of a man aged twenty-eight years. It appeared to be fibrous in structure, and extended more to the left than the right side of the mouth. Mr. Porter, by means of a large curved needle, carried a piece of strong whipcord ligature round the base of the tumour, and tied it very tightly. He said he preferred removing the growth with a ligature, instead of the knife, in order to avoid hæmorrhage, which, in this situation, is often troublesome to arrest, not only from the difficulty of seizing the bleeding vessel, but also of making pressure upon it. He showed an ingenious little instrument for tightening the ligature after a day or two.

ST. THOMAS'S HOSPITAL.

COMPOUND FRACTURE OF THE SKULL WITH DEPRESSION ; RECOVERY WITHOUT OPERATION.

Under the Care of Mr. SOLLY.

WILLIAM THEOBALD, æt. 5, was admitted into St. Thomas's Hospital, under Mr. Solly's care, Sep. 27th, 1866, after having been run over. The wheel had passed completely over his head, but on being brought into hospital there were no marked signs of concussion. A huge piece of scalp, measuring about four inches by three, had been torn completely off the left side of the head, and was now missing, and an ugly wound remained, ingrained with dirt, and with its edges ragged and freely undermined. In this wound the parietal bone was exposed, and the periosteum had been separated, and was gone from a surface measuring about three inches by two. At the back of the portion of bone exposed was a long fracture with the outer table of one edge depressed about one-third of an inch below the level of the other.

As, however, there were no symptoms of brain injury, Mr. Solly thought it advisable to watch the child, and defer any operative interference, until the symptoms should indicate the necessity for it. The wound was therefore cleaned, and the lacerated portions pared ; and two or three ligatures were found necessary to arrest hæmorrhage from the edges of the skin.

For the next week there was a little feverishness, but the pupils remained normal in size and acting properly. The child did not complain of headache, and there was no evidence either of brain irritation or compression. The edges of the wound sloughed, however, as was expected.

After this time he did not improve so quickly as could have been wished, for he continued to be very fretful, and, at the same time, the portion of bone which had been denuded of its periosteum began to separate.

On December 7th, 1866, seventy-one days after the injury, a large piece of bone, about three inches by two, and exactly corresponding with the surface exposed originally, separated, and was removed by the fingers, and the source of irritation being removed the child rapidly recovered its cheerfulness and health. It remained in hospital, however, until March 19th, when the wound had healed, and the patient was quite restored to health.

Remarks.—The chief features of interest in this case are, in the first place, the absence of any marked symptoms of concussion, and in the next, the little or no evidence of injury to the brain resulting from so extensive an injury to the calvaria. This is, of course, less remarkable in a child, for the brain at an early age is much less sensitive, and at the same time, is more perfectly defended from concussion by the greater elasticity and yielding in its bony walls.

That pressure must have been exerted upon the brain in this case by the edge of the fracture, appears evident from the amount of depression, for one-third of an inch would represent much more than the thickness of a parietal bone in a child, and there is not that distinction between outer and inner tables which is found in an adult, and which allows of considerable depression of the outer table occasionally without material displacement of the inner.

The loss of periosteum exactly corresponding with the limits of the subsequent necrosis is also interesting, as bearing upon the nutrition of bone. But that the necrosis did not follow as a necessary result of this loss, can be readily believed by any one who has had much experience in injuries to the scalp. Provided a pad of healthy skin covers the denuded bone it is usual to find no exfoliation, but in the present case, a covering of any vascular tissue was wanting, and necrosis necessarily resulted.

Mr. Solly declined to elevate the depressed bone, seeing no evidence of pressure in the symptoms, and knowing the adapting power of the brain in children. And in

questions referring to the treatment of injuries or diseases of the brain, one looks with great deference to the expression of so experienced an authority. But we are somewhat inclined to think that in adults undue procrastination is rather the order of the day among metropolitan surgeons, and trephining and exploring are reserved as what is termed *a dernier resort*, but are usually too late to be a resource to all.

DISEASE OF ELBOW-JOINT; EXCISION; SUCCESSFUL RESULT.

James H., æt. 58, a naturally robust labouring man, was admitted, February 6th, 1867, under Mr. Solly's care, suffering with disease of the elbow-joint.

The history obtained was as follows:—He had suffered a good deal of pain in the joint about three years ago, but no cause for it was made out. This continued off and on until a year ago, when it became much worse, and an abscess formed in front of the joint. He then went into Guy's Hospital, and remained an in-patient for about six months, during which time fresh abscesses formed about the elbow, and were opened naturally and by incision. His health gradually gave way, and during the past six months his general health and the local disease have become steadily worse.

At the time of admission his elbow was much swollen, and sinuses existed on each side of the joint. That on the outer side led to exposed bone, apparently on the outer side of the ulna towards the joint, and also on the articulating surface of the inner condyle of the humerus; that on the inner side led also to denuded surface of the ulna; but in neither case was any sequestrum felt. On pressing along the axis of the arm, acute pain was caused in the elbow-joint, and the same occurred when flexion was attempted, as also when direct pressure was used over the upper part of the ulna. There was much pain on pressing the radius and ulna together above, but less on rotating the radius, or on pressing directly over the head of the radius. These symptoms, therefore, indicated mischief, chiefly occurring between the opposed surfaces of the ulna and humerus, and to a less degree on the radial side of the joint. The discharge was very copious and exhausting, and the pain constant and severe.

On February 27th, on account of the increasing deterioration in the man's health, from the amount of suppuration, and from the want of improvement in the disease locally, Mr. Solly excised the elbow-joint, removing about one and a half inch of the lower end of the humerus, together with the whole of the head of both ulna and radius.

The bones, when examined, showed an extensive amount of chronic disease, chiefly, however, on the ulnar side of the joint. The articular cartilage had completely disappeared from the whole of the inner condyle, and the ulna was somewhat bared; but the rest of the joint was filled with pulpy granulations. There was no sequestrum.

From the date of the operation he improved rapidly in his general health; the wound suppurated very freely, and did not close for seven or eight weeks. At the end of that time movement was allowed of in the new joint, and the limb was released from the splint in which it had been previously kept.

On the 2nd May he left the hospital with a most useful arm, and passive motion was directed to be continued, which would ultimately give him an almost perfect elbow-joint again.

Remarks.—This case forms a good illustration of a common form of elbow-joint disease, commencing originally, in all probability, in the synovial membrane, and extending to the cartilage. And here we may suggest that a careful study of the history and of the appearances of the diseased portions of bone removed, in a large number of cases duly entered by the registrars of large hospitals, and a series drawn up and comparisons fairly made, would form a valuable fund of information relating to the pathology of joint diseases, in which so much remains to be learned. The value of tables of comparison—*i.e.*, of tables containing a somewhat full comparative registration of symptoms and appearances, in contradistinction to ordinary crude and fallacious statistical tables, has been greatly lost sight of in hospitals, and it would be well if greater attention were paid to this subject by a larger number of our metropolitan hospitals. The amount of most valuable information which is annually thrown away by deficient record of cases, or by the non-existence of records at all, is enormous. At St. Thomas's, however, the staff have long been alive to the importance of careful registration, and a system is now adopted which will produce valuable results, and prove of immense service in the study of disease. We hope to see before long these results printed.

DISEASE OF ELBOW-JOINT; AMPUTATION OF ARM; RECOVERY.

Mark R——, æt. 16, working at a blacksmith's, entered St. Thomas's Hospital, under Mr. Solly's care, March 20th in the present year, with an early form of disease in the elbow-joint.

The history was that he had suffered pain in the elbow for about three months, brought on in the first place by missing his stroke with a sledge-hammer, and spraining the elbow, and subsequently increased by the jarring hammer-work at the forge.

He had not had much swelling, but the pain had been constant, severe, and increasing, and was more marked at night time. He had been unable to work for the previous month.

On admission, the elbow was considerably enlarged from deep thickening, besides mere œdema. The surface was red behind the outer condyle, and the local temperature was raised. There was acute pain upon direct pressure behind the outer condyle, and there was less, though unequivocal, pain upon pressing ulna and radius together, and upon direct pressure behind the joint upon the inner side; there was very little on rotating the radius, and less on pressing the joint surface of the humerus against those of the ulna and radius. The arm, however, was impeded in its movements, partly by the inflammatory deposit in the tissues, and partly by the effusion and commencing disease inside the joint.

He was an Irish boy, with decidedly strumous aspect of the dull, sallow type, and was by this time rather emaciated and reduced in health.

His arm was kept at rest upon a splint, and his general health attended to for the next month, and at the end of that time, an incision was made into a quantity of pus behind the external condyle. Previous to this there had been very little evidence of acute mischief in the elbow-joint, but immediately after this date, symptoms of acute suppurative synovitis came on, the pus escaping by the wound made behind the external condyle. At this time his lungs were examined by Dr. Barker, who pronounced the right side to be the seat of tubercle. Mr. Solly, therefore, was deterred from proceeding to excision, an operation which the severity of the symptoms and their effect upon the boy's general health, seemed to warrant. He remained in a very low condition, with the wound discharging enormous quantities of pus for the next six weeks. On May 29, the Registrar's notes report the following as the condition of his arm and of his general health:—"Wound behind outer condyle discharging freely, but not so copiously as before, and wound itself reduced to a very small hole, not larger than a small pea. Probe passes across back of joint to inner side of arm, and also directly to outer condyle, which is felt exposed. Health much improved; not in much pain."

After this time the arm became worse again, and his health being now decidedly improved, Mr. Solly thought it advisable to amputate, and by this means remove the source of irritation. Excision of the joint he did not consider would be satisfactory, as his health would possibly not bear up against the suppuration which must follow. The arm was, therefore, amputated between the middle

and lower thirds by flaps on June 12th, eighty-four days after admission.

The bones, when examined, showed some small pieces of separated dead bone on the external condyle, apart from the joint surfaces. The articular surfaces of the bones forming the elbow were covered with extensive soft granulations, but the cartilage was only removed in a few spots on the humerus. The ligamentous apparatus was softened and destroyed.

After the amputation the boy progressed rapidly. The ligature came away slowly from the brachial artery, not before the 17th day, and a small scale of bone was removed from the end of the stump on August 4th. He left the hospital October 3, restored to perfect health, and with a thoroughly healed and useful stump 197 days after admission, and 113 after the amputation.

Remarks.—The course of this case apparently differs considerably from the last in the elbow-joint disease being secondary to the necrosis. The injury, in the first place, probably resulted in necrosis of portions of the external condyle, in close proximity to the attachment of the external lateral ligament. From this point a chronic form of inflammation extended to the joint; and this was the condition of parts at the time of his admission. After laying open the abscess behind the condyle, which appeared mainly connected with bone disease external to the joint, but, probably, communicated more or less freely with the interior of the cavity, acute suppuration took place in the joint, and resulted in partial erosion of cartilage, with destruction of the ligaments. It was not on account of the extent of disease that amputation was resorted to, but the effect of so exhausting a suppuration was proving so serious to the boy's general health, that nothing less than the complete removal of the limb was thought to offer him a chance of recovery.

An interesting feature in the case was the existence of tubercle in the lung, which, at first, was allowed to negative operative interference. And this delay nearly proved fatal. How far the fear of rousing into activity tubercles in the lung should prevent the surgeon from operating upon strumous and phthisical patients, in cases of bone and joint disease, is a question of great importance, and is worth careful consideration. This boy had manifest evidence of tubercular mischief in the lungs, his system was being completely drained by the copious suppuration in the elbow-joint, and this was suddenly removed, but there was indication at the time of his leaving hospital that the disease in his lungs had increased. Patients rarely show themselves again after going out, so that there is but little chance of learning what effects will be produced on the phthisis in this case, which is certainly to be regretted.

Reviews.

1. A PRACTICAL TREATISE UPON ECZEMA, including its Lichenous and Impetiginous forms. By Dr. M,Call Anderson. Second Edition. 8vo. London: Churchill and Sons. 1867.

2. SCLERODERMIA AND ITS RELATION TO ELEPHANTIASIS ARABUM. By Dr. Vald Rasmussen, Prosector in Pathological Anatomy, in Copenhagen. Translated from the "Hospitals-Tidende," for May and June, 1867. By Wm. D. Moore, M.D., &c. Edinburgh: Oliver and Boyd. 1867.

The first edition of Dr. M'Call Anderson's book appeared in 1863, and obtained for its author the merited approbation, even of those who dissented from his peculiar views respecting the nature and extent of eczema. Since 1863, Dr. M'Call Anderson has become better known as a writer, and as a practitioner; and one direct result of this is the appearance of this second edition of a work which passed muster well with reviewers at home and abroad four years ago.

To those of our readers who may not have seen the first edition, we may observe that Dr. M'Call Anderson widens considerably the generally understood signification of the term Eczema; and objects in strong terms to an anatomical classification of cutaneous diseases, believing it to be the most objectionable of all. The best classification, in his opinion, "is one founded, not upon the elementary lesion, but, as far as possible in the present state of our knowledge, upon the nature of the affection. This [he adds] is the basis of the classification of Hardy, and of that which was adopted some years ago by my late colleague and myself" (p. 4).

The following are his conclusions as to the pathology of eczema:—

"1. That the elementary lesion of eczema is not of necessity a vesicle.

"2. That it may be an erythematous state of the skin, a vesicle, a pustule, a papule, or a fissure.

"3. That impetigo and lichen are merely varieties of eczema, in which the elementary lesions are respectively pustules and papules.

"4. That cases of eczema are often met with, in which an erythematous state of the skin, vesicles, pustules, papules, and fissures are met with in a combined form" (p. 4).

There are four symptoms which, in Dr. M'Call Anderson's experience, are almost always present in a greater or less degree in cases in which the eczematous eruption is at its height. These are:—

"1. Infiltration of the skin.
"2. Exudation on the surface of the skin.
"3. Formation of crusts.
"4. Itching or burning heat."

Among other remarks on No. 2 (exudation), he observes that "it may be produced artificially, by painting over the eczematous surface a solution of potash (say gr. x. of potassa fusa to the ℥j. of water), which, acting as an irritant, not only produces a copious exudation on the surface of the skin, but likewise stimulates the capillary circulation of the part, and thereby induces absorption of the fluid infiltrated into the tissues" (p. 7). Contrary to the opinion held by the disciple of Willan, Dr. M'Call Anderson maintains that the elementary lesion in eczema is not necessarily, or solely, a vesicle. He thinks it may be:—

"1. An erythematous state of the skin.
"2. A vesicle.
"3. A pustule.
"4. A papule.
"5. A fissure; or a mixture of several or all of these lesions" (p. 12).

As regards this second edition, we may say a few words.

The first edition consisted of 134 pages; this consists of 180, and is certainly improved in many important respects.

We would specially mark improvements as regards diagnosis, treatment, and the noting of the distinctive characteristics of the *local* varieties of eczema. In the first edition there were many several useful prescriptions, in this edition there are many more. In the second, Dr. M'Call Anderson, in the true spirit of a man of science and a scholar, expresses a change or modification of opinion, where his opinion has undergone a change. We are sure this book will, in due time, run to a third edition, and if Dr. M'Call Anderson will take a friendly hint, we would advise that the notes should be put at the foot of the pages to which they respectively belong, instead of in their present less convenient place at the ends of the chapters; and we further take the liberty of suggesting that the prescriptions should be incorporated with the text.

Rasmussen and Moore.—The pamphlet translated by Dr. W. D. Moore, appeared partly in the September number, and partly in the October number of our respected contemporary, the "Edinburgh Medical Journal," in connection with which we briefly noticed it in ordinary course. It is now reprinted in its present form, and is calculated to prove most useful not only to dermatologists, but also to operating surgeons, who are now, with comparative frequency, as compared with former years, called on to operate in cases of elephantiasis arabum. We must apologise to a gentleman of Dr. Moore's well-known learning in the Scandinavian languages, for saying what is wholly unnecessary, as we have said it over and over again in our columns—that the profession is deeply in his debt for this, as for many other contributions of like kind to medical literature.

M. C. Sappey has published in the *Comptes Rendus* a paper on the unstriped muscles of the eye. Up to the present, he has described only the muscles of the eyelid. He intends to describe, also, the ciliary muscle, which is thought to be employed in adapting the eye's focus to vision at different distances.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 4, 1867.

THE IRISH APOTHECARIES' COMPANY.

THE letter of "Anti-monopolist," which we published last week, and that of "Pro Bono Publico" which we publish in reply to it to-day, raise a question of considerable interest to our Irish professional brethren. The question is shortly this :—Shall the Licentiates of the Apothecaries' Hall of Dublin, who, *as such*, assume the right to practise medicine, be continued in the legal monopoly of practical pharmacy given them in the time of George III., and continued to them by the Medical Act of 1858, or should practical pharmacy be thrown open to all, as in England and Scotland? We quite agree with "Anti-monopolist" that the occupation of a tradesman, and that of a professional man, are now, and probably will continue to be, irreconcileably opposed; but there is also great and unanswerable force in the argument of "Pro Bono Publico," that the public should be protected from the consequences which frequently appear to result in England, from the custom of allowing ignorant persons to compound prescriptions.

Now, we do not think that the English system ought to be introduced into Ireland; and our strongest argument is, that chemists and druggists of the better kind in England have been compelled to protect themselves and the public by introducing a voluntary pharmaceutical education and examination, in order that it may be seen who are competent to compound prescriptions, and who are not.

Whether the Irish Apothecary be a medical practitioner or not, we care not to discuss. The Act of the 31st of George III. mentions nothing of the kind, but provides for the examination of candidates "in the knowledge of the business," and for their education by a long apprenticeship, *and by that only.*

Any one who will take the trouble to read that Act, will see that the whole process by which the long apprenticeship is now dispensed with, and courses of lectures substituted for it, is, probably, if not absolutely, illegal; as is also the examination of the candidate in Medicine and Surgery, by persons whose positions as examiners depend on the fact of their being shareholders in the trading company. Any person who wishes to become an Apothecary, pure and simple, may do so legally in the following way :—

First let him pass the examination for Apprentices; then let him serve his time for seven years; and, lastly, let him come up for examination, not in Medicine, but in 'the art and mystery of an Apothecary.' If rejected for anything except 'his qualification and knowledge of the business,' let him appeal to the King and Queen's College of Physicians, who must examine him strictly as laid down in the Act, and who are bound to give him a certificate, which will be for all legal purposes equivalent to that of the Apothecaries' Hall, provided he should satisfy the President and Fellows, not as to his knowledge of Medicine, but 'as to his qualification and knowledge of the business' of an Apothecary (31 Geo. III. (Irel.), cap. 34, sec. 23).

The following is the form of the "Certificate to Open Shop," which ought to be, but which, we believe, is not now, given to the successful candidate. We take it *verbatim* from section 18 of the Act, which, in section 24, further provides that the fee to be paid for such "Certificate to Open Shop" shall be "a sum of ten shillings and no more." The modern form appears to us to be, either absolutely illegal, or at least wholly unknown to the Act of George III., which reads in the manner, or to the effect following, that is to say :—

"To all to whom these presents shall come, greeting:—Know Ye, that We, the Governor, Deputy-Governor, and Directors of the Apothecaries' Hall, of *Dublin*, have this Day duly and carefully examined A. B., the son of C. D., of, or late of———, [*as the case may be,*] in the County of———, and we think him properly educated, or qualified, to become an Apprentice, or Journeyman [*as the case may be*], to learn or transact the Business of an Apothecary, and We do hereby certify the same. Given under our Seal, the——day of———, in the Year of Our Lord——."

This form primarily refers to the Certificates for Apprentices and Journeymen; but Sec. 22 provides that "no person shall open shop, or act in the Art and Mystery of an Apothecary, within the Kingdom of Ireland, until such person shall have been examined as to his Qualification and Knowledge of the Business, by such persons and in such manner as herein before-mentioned and required for the examination of persons applying to become Apprentices or Shopkeepers, which examiners . . . shall grant or refuse to the persons so applying for certificate to open a shop, or follow the Art and Mystery of an Apothecary in the Kingdom of Ireland, with the like remedy of appeal, as herein before-mentioned." Sec. 23 then provides that, in case of appeal, "*such certificate as herein before-mentioned,*" may be granted.

From all this it is plain that the law contemplated an apothecary only in the pharmaceutical sense of the term; and, indeed, the Act expressly states the reasons for thus providing for the public safety, as it did, and still does in Ireland.

But the situation is changed. Whether fairly or not, the apothecary is now, or may be, "a registered practitioner" equally with the most eminent Physician or Surgeon; and, as an almost necessary consequence, he has sought for, and has in great part obtained, recognition by public bodies as a *Practitioner*. This being so, he evidently has an unfair advantage over the junior Physician or Surgeon, or even over many Surgeons in country towns, or thinly-populated country districts; and the only excuse which can possibly be advanced for the maintenance of his pharmaceutical monopoly is the alleged advantage to the public arising from it. But is it necessary for the public health that apothecaries should be the only licensed compounders of other men's prescriptions? We think not; and while we would earnestly deprecate the lowering of the Irish com-

pounder to the English standard, we think the public would be better served, and the Profession also, if every *registered Practitioner* could legally act as an Apothecary, should he desire to do so, and should his college not prevent him. This plan would destroy monopoly, and serve the public at the same time. That the Apothecary licence is not considered sufficient, even by its own advocates, is evident from the fact that the higher class Apothecaries—than whom few men serve the public better, or are more respected—almost invariably are found to have a Medical, and frequently a Surgical qualification also.

If instruction for at least three months in practical pharmacy were insisted on in the case of every medical student, as we think it ought, then every registered practitioner would be able to serve the public as a pharmaceutist if he wished to do so; and any one who should prefer to be simply an apothecary, could become such by strictly following the provisions of the statute of George III., above noted.

THE CASE OF MR. STATHAM.

It is probable that the majority of our readers retain a vivid recollection of the case of Mr. Statham, the Dentist of the Great Northern Hospital, against whom a patient brought an action for an alleged assault, in which, according to her statement, he administered chloroform to her, and extracted six teeth against her will. Our opinions on the case were freely expressed at the time, and we were glad to find them coincide with the impressions of our professional brethren throughout the country. A new trial has been obtained, which terminated on the 28th ult., in a verdict for Mr. Statham, to whom, accordingly, we tender once more the most cordial sympathy in the painful ordeal to which he has been subjected. We hasten to do so, for amidst the anguish this protracted suspense must have caused, and the effects of which nothing can remove, it cannot but be to him some consolation to know that the whole profession feels acutely for him, and would gladly offer him the condolence of brethren who are ever in danger of a similar calamity.

Is not every practitioner of the healing art liable to be made the victim of some designing or misguided person? We all walk about with our reputations—more precious than our purses—liable to be at any moment assailed by any one base enough or foolish enough to attempt to commit a moral assassination. It is no business of ours to attempt to fathom the motives which led the dressmaker to bring her accusation against Mr. Statham. What boots it whether the girl were self-deceived or the dupe of other persons, or the victim of hysteria, or any other delusion. The positive evidence of those present at the operation, and the testimony of such skilled witnesses as Sir W. Fergusson, and Drs. Richardson, Sansom, Anstie, and others, suffices to exonerate Mr. Statham from the charge of forcing this hospital patient to take chloroform, and completely disposes of the subsidiary accusation of mal-practice. In accordance with this evidence, after a most careful and impartial summing up by the Lord Chief Justice, a special jury has found a verdict for Mr. Statham, and thus, we trust, for ever disposed of the accusation.

Yet, even this is but poor consolation. Who is to compensate Mr. Statham for what he has suffered? We do not mean who is to pay the costs of defending his character in a court of justice, for fortunately, we believe, even this protracted litigation will not suffice to endanger his position in life. His practice and his fortune may be said to have received but a slight shock. It will be remembered, to his honour, how, on the former occasion, he replied to a proposal to defray his costs by a public subscription, that he was able to pay his own expenses, and, therefore, did not think it right to accept the hard-earned offerings of his professional brethren. But the very nobility of character which prompted that answer, is but an index to the intensity of the sufferings to which we more particularly allude.

How much mental anguish, how many sleepless nights, how many sad misgivings about the "uncertainty of the law," must he have endured, during all these weary months in which he has had this sword of Damocles suspended above him?

We rejoice that he comes out of this trial with a character unsullied, and a reputation for kindness to hospital patients that many a man might envy; and as the one solace that is in our power to bestow, we offer him the cordial sympathy of that large section of the medical world it is our privilege and our honour to represent.

SEA-SIDE DRAINAGE.—WORTHING.

[COMMUNICATED].

We have already discussed the subject of sea-side sewage in several of its aspects, and once more, in accordance with our previous intimation, return to it.

Among the watering-places that claim a notice in a series of articles like this, is Worthing—a pleasant resort on the south coast, and admirably adapted for a large class of cases. The town may be looked upon almost as a new one, for it is only of late years that the advantages of its climate have been fully appreciated, and that building operations have consequently been largely extended. It is not our purpose to enter at length into the relative climates of the towns we notice, so that we shall at once pass to its system of drainage, which we freely confess has inspired us with some misgivings and no little surprise.

As the train glides into the station, the visitor to Worthing may notice on his left hand a lofty square tower. This is the water-tower of the town. He will probably be rather surprised when he is informed that the shed beside this tower contains the engine which performs the double duty of distributing the water to the houses and the sewage to the land.

To enable this to be effected, the sewage is collected and conveyed to a well constructed for this purpose, whence it is distributed by steam-power to the lands set apart for its reception.

The feature, however, most requiring attention in reference to this is that the well for the drinking water is within a distance of fifty feet from the sewage well.

We may add that the water-well is in rather an indifferent condition, but that a new one is being sunk close by. It would thus appear that neither the inhabitants nor their advisers have any fear of percolation, or they would not have proceeded to construct four wells within so short a distance of each other, and devote two of them to sewage, and the other two to drinking water. The soil in which this has been done is chalk.

Respecting the water supply, we remark that it is professedly constant, but we think, in reality, it will be found intermittent; for by calculating the quantity raised into

the population, we find it does not give more than twenty gallons a-head per diem. We shall, of course, be told that there are numerous surface wells, of which the people avail themselves, but this is a practice attended with some risk, since the system of irrigation being carried out, it is to be feared that pollution of these springs may ensue.

We have said that the scheme of irrigation has been adopted at Worthing. We should be glad if some of its advocates would undertake to describe with what results.

We confess that the plan has, in our eyes, several objections. It involves, first of all, the creation of a marsh near a town—surely no recommendation to sanitarians. But, even apart from this, it would be well for the *practicability* of this highly vaunted plan to be reported upon by the authorities of a small town like Worthing, where it had been tried.

Are we not correct in saying that land, irrigated with town sewage, can be utilised for the cultivation of Italian rye grass only?

Now, this must be eaten green, and, consequently, cows and horses must be kept *on the spot* for eating it, and yet these stock farms are scarcely likely to be profitable. To be sure the visitors to Worthing in the season may hope to have unadulterated new milk, but that commodity may not alone support such a farm.

If our investigations should lead to these points being cleared up, they will not have been undertaken in vain.

The history of the plan at Worthing would seem to indicate that our opinion is very general as to the small profit to be made out of sewage farms; for, we believe, that the holders of the lease of the sewage lands have the liquid distributed to them at the public expense for several years, and are at liberty, even on these terms, to take as much or as little as they please. After a few years it is provided that a small rental shall be paid.

To the economical we confess to have paid less attention than to the sanitary aspect of drainage questions, and we do not like to close this article, the first in which we have criticised the notion of irrigation without again urging this.

Let the reader ask himself what becomes of the sewage thus thrown upon the land? Does it find its way into the streams, and if so, will it not pollute them in a manner more insidious perhaps, but as certain as if conveyed there by the engineer? Most of all, is it not certain that some of it will find its way into the surface wells?

We have expressed our doubts very plainly about Worthing, because we have felt it our duty to do so. If we have inadvertently fallen into any minor errors we shall be glad to be corrected, but whether or no, we look to our medical brethren of Worthing, and others interested, to communicate any facts likely to modify the opinions we have expressed of that agreeable resort, or to place its sanitary arrangements in a more favourable light. For the sake of all concerned, we should be glad to have our doubts solved.

Notes on Current Topics.

The Rescue Society.

The association thus named has sent us its last report. Among the numerous efforts of benevolence which distinguish the present day, none are more worthy of sympathy and support than the agency which seeks to rescue the fallen female, and to give the aid and shelter which may save the yet unfallen one. In pursuance of these objects, the society has a number of homes situate in different parts of London—some for the reception of those unfortunates who feel their wretchedness, and wish to escape from it; and some for young girls who have not yet fallen, but who "are in circumstances of danger." Not fewer than 526 fallen females have been admitted to these homes during the past year, and 161 unfallen, a great part of whom have been reclaimed, a large number being still in the homes. Many have necessarily been sent to the hospitals, and the committee regret the inadequate accommodation afforded in the lock wards, as they often find great difficulty in getting their cases admitted. The report contains a variety of interesting particulars which we commend to the notice of all who wish well to these degraded and helpless women.

The London Poor.

We have already drawn attention to the distress in the Isle of Dogs, revealed by Dr. Savjaut. He has stated that hundreds are there dying for lack of food, and the same sad spectacle goes on, as we have said, in other places. And yet we have a so-called Poor-law. A recent report says that last September, in one week, 12,022 poor persons were relieved by this Poor-law, than in the corresponding week of last year. But this is no trustworthy index of the distress abroad, for not merely the Workhouse, but every official of the whole system is so shunned by the best of the poor, that hundreds die of starvation rather than avail themselves of the relief to which they are entitled from their parishes. It is sad enough to think that the iniquities that have recently been exposed, may be, to a large extent, answerable for the hatred with which honest poverty in England regards parochial relief. Still more shocking is it to think that these iniquities have probably been so long practised, that whatever reforms may be carried out, it will be next to impossible to eradicate the impression they have made on the poorer classes, who, though slow to learn some things, will be doubly slow to forget such as these. Still, we must reform—we must revolutionize our Poor-law system—or sweep it away and create a better. Meantime, the poor will find some solace in the charitable funds being raised, and which we once more commend.

Poor-law Inquiry.

Dr. Lankester, the Coroner, lately held an inquest on the body of a poor woman, who was admitted into the receiving ward of the St. Pancras Workhouse, and who died about three hours after her admission. The resident Medical Officer had given an order signed "urgent," for a supply of brandy, which could not be obtained, and the woman, it was supposed, died in consequence. The attention of the Poor-law Board was called to the fact, and they applied to the Guardians for an explanation. The report of the Master of the Workhouse was returned to the Board, from which it appears that the order *was* given, that it was signed "urgent," that the master sent it to an assistant-master who could not be found, so the poor woman was neglected and died. The master, in the course of his statement, reflects on the Medical Officer, that if he had felt anxious for the welfare of the poor woman, he would have supplied the brandy from his own private

bottle. But it is evident that such was not the duty of the medical man, who, however ready he might have been to do it, no doubt had other duties to perform. Where the blame ought to be laid does not appear. But from these facts it is plain to every one that the management of our Workhouse Infirmaries is yet very far from being perfect.

Pauper Insanity.

From the annual returns of insanity among the paupers of England and Wales, we select the following figures, which, as well as other statistics, may interest some of our readers. Out of 963,200, the number of paupers on the 1st January last, 41,276 were found to be insane. Of these, 18,157 were males and 23,119 females, divided again into 30,905 lunatics, and 10,371 idiots. These were unequally distributed: thus, the insane amounted to 5 per cent. of the paupers in the north-western and west-midland divisions of the kingdom, to 3·6 per cent. in the south-western, and only to 3·3 per cent. in the eastern division and Wales. The same or greater inequality exists with regard to idiocy. In London, with 138,706 paupers, there were 666 idiots; while in the west-midland district, with only 108,202 paupers, the idiots were more than double, being 1346. Almost the same proportions were found in Wales as in the west-midland. In Yorkshire, the numbers were 865 idiots in 64,092 paupers, and in the north-midland, 768 in 55,846 paupers.

The Public Health.

The mortality returns still speak very favourably of London—the deaths registered last week being 201 less than the average number. In other towns a contrary condition seems to have set in. The annual death-rate of Edinburgh has risen last week to 33 from 24 in the preceding week. In the same way an increase is recorded at Newcastle from 28 to 33, at Salford from 27 to 34, at Bristol from 24 to 28, and at Manchester from 31 to 35 per 1000. At this last town, scarlatina and measles continue to prevail. So far as the prevalence of zymotic diseases and the annual death-rate, London just now seems to be one of the healthiest places to reside in.

The following are the death-rates recorded for the week:—London 24, Dublin 22, Edinburgh 33, Glasgow 27, Birmingham 26, Bristol 28, Hull 28, Liverpool 32, Leeds 22, Manchester 35, Newcastle-on-Tyne 33, Salford 34.

The actual number of deaths in London registered during the week was 1426. Of these 250 were caused by zymotic diseases, the average number being 371. Phthisis caused 148 deaths, bronchitis 205, pneumonia 132, heart disease 68.

Hydrophobia.

On the 13th of last August, Mr. James Wells, engineer, 57 years of age, was bitten by a large retriever dog, which was rushing about in an excited state between Camberwell and Walworth, and was supposed to be in a rabid condition. As soon as he was bitten he applied at St. Thomas's Hospital for advice, and continued to attend as out-patient until he was confined to his home, erysipelas having set in. At length hydrophobia supervened, and he was received into the hospital by Mr. Dobson, the house-surgeon. This occurred on the 23rd instant, and the patient died the next day. An inquest was accordingly held by Mr. W. Carter, the coroner for East Surrey.

The Nomenclature of Diseases, prepared by a Committee of the Royal College of Physicians of London, which we described some time since, has been duly approved by the Fellows, and is therefore likely to come into general use. We presume the journals will be supplied with early copies to enable them to diffuse information about it.

The Commissioners of Lunacy have again been compelled to prosecute medical men for receiving insane patients as inmates of their houses without fulfilling the required formalities. We have again and again warned our readers of the danger of so doing. The Commissioners have no choice but to enforce the laws made for the protection of the insane, and the carelessness of medical men in placing themselves in a position to be prosecuted is marvellous. The requisitions are not onerous, and yet they are thus constantly the cause of needless annoyance and expense to gentlemen who should know the law.

It is said that the proposed sale of the London Fever Hospital to the Metropolitan Asylum's Board is likely to be effected, in which case the Committee will erect a new hospital for the accommodation of persons above the pauper class. In that case we hope they will find a good site far enough in the country to render it improbable that the new buiding will in a few years be surrounded with houses.

We are shortly to have a blue-book on Greenwich Hospital. We trust it will contain a plain and practical proposal for making that fine edifice of some use to the country. Why not adopt the plan we suggested long ago of having a naval medical school, such as the sister service has at Netly.

Mr. Cooper, F.R.C.S., has been re-elected Master of the Worshipful Society of Apothecaries of London. Mr. Cooper is the representative of the society on the General Medical Council. Such a re-election is a very unusual honour.

The London Surgical Home is to be re-opened on the self-supporting principle; Mr. B. Brown will have the entire charge. We learn, with approval, from the advertisement, that the ordinary medical attendants of the patients are invited to consultation before treatment, thus continuing the practice we have more than once upheld of publicity to the profession.

A strange disqualification has been insisted on at the Westminster Hospital. A gentleman who had passed his examinations for the Fellowship of the Royal College of Surgeons, and presented an official certificate from the secretary of that fact, was not allowed to compete for the surgeoncy, because he had not received the diploma, before the meeting. This is sharp practice.

The General Session of the St. Andrews Graduates Association is being held as we go to press. We have from the commencement advocated the objects of the Association, and shall find room for a full report of the proceedings. We believe we have devoted more space to the Association than any other journal. Besides political matter, the General Session has a high scientific value, as the list of the papers to be read, we have already published, sufficiently demonstrates.

Medical Testimonialising.

THE *Irish Times*, in its impression of the 30th ult., devotes its leading space to an excellent article on this subject, which we regret that the pressure on our space prevents us transferring to our columns.

Much of the argument is based on the fact that the testimonialising was at work in the Medical School of Trinity College. Our contemporary, however, has fallen into a laughable error, for it happens that the proposed presentation is not to be made to any teacher connected with that school, but to another gentleman of the same name.

Water.

FROM the report of the Medical Officer of Health of Whitechapel, it would seem that the East London Company is more accommodating than its rival, the New River Company—the former being willing to supply the courts with water direct from the main, where waste-preventors are fixed ; while the latter imposes inconvenient restrictions. We hope a constant service will shortly become everywhere compulsory.

The *Builder* advises means to be employed for the collection of rain-water from the roofs of all buildings. The utilisation of the rainfall would do away with the necessity of connecting rain-water pipes with the drains. For household purposes of many kinds, this rain-water would prove very serviceable. The *Builder* has always been a warm advocate of all sanitary reforms, and its conductors have our best wishes. It is alleged that the late outbreak of fever at Guildford originated in contaminated water.

The opinion we lately expressed respecting the Royal Commission on Water Supply, seems to gain ground. We look for the report with interest.

A Clinical Society.

NOTWITHSTANDING the number of our medical societies, some diligent workers have discovered, as they think, a want in this direction, which they propose to supply. Accordingly, we are to have a new one, to be called, "The Clinical Society of London," and which will be devoted, for the most part, to the collection of cases. We do not doubt that it will be a success, if the promoters will not attempt too much. Nothing is more interesting to a practitioner than a well related case, and the Clinical Society will afford the opportunity of communicating to the profession much valuable experience, by gentlemen who are too busy, or too diffident, to deal with large unsettled questions. We hope the promoters will abandon the plan of levying an entrance fee, and will fix a low rate of subscription. Five shillings a-year ought to bring together a large number of members, while a guinea would deter not a few from joining. Why should not our societies number thousands? They would, then, be much more powerful for good. Clinical study is not always most ardently pursued by those to whom guineas are no object.

SUDBURY, in Suffolk, is to have a new hospital. The foundation stone has already been laid. We know the site very well, and we heartily wish prosperity to the undertaking. The building is to be small, but capable of being added to.

THE Farnham inquiry is not yet over. Most of the facts alleged by those who undertook the investigation have been proved on oath. It is clear, however, from other revelations, that Farnham is but a specimen of many other places. A general inquiry into the condition of the whole of the workhouses in the country, would be of much more value than isolated efforts.

THE Association for the extension of the Contagious Diseases Act, the formation of which we lately announced, seems likely to be a success. The first work of the Society will be to collect information as to the actual working of last year's act, and the diffusion of such information in appropriate channels. We shall be happy to assist the Society as far as we can.

BIRMINGHAM, by the voice of its Town Council, has decided that it is "undesirable and unnecessary" to appoint a Medical Officer of Health. It seems that we shall have long to wait before Officers of Health will be found in every district.

Returns of the Dublin Medical Schools.

THE return of the Anatomical Committee for this Session, presents the following statements of the numbers of students attending the various schools :--

Trinity College	188
Ledwich	178
College of Surgeons	161
Carmichael	100
Catholic University	90
Steevens'	80
	797

We believe this return to be altogether fallacious, and that if true statistics of the numbers in actual attendance could be procured, it would show a total of not more than two-thirds of that stated above.

The gentlemen who make these returns are incapable of falsifying the actual facts, but they may consider it proper to enumerate, as in attendance at their schools, "chronics" of seven years standing, who may probably never proceed to the profession at all, and certainly are not to be considered as students in the true acceptation of the word. Another source of error is that students desiring to have additional subjects for dissection, can obtain them by extra payment, and thus will appear more than once in the returns.

OBITUARY.

WE lament to record in our journal this week the death of Mr. Obre, the well-known Surgeon, whose name will be found in the annals of Surgery as long as that science exists, from his being the first to diagnose and operate successfully on an obturator herniæ.

At the time he was engaged in forming a general medical practice (which afterwards became very extensive), he opened and worked an Ophthalmic Hospital for the poor who chose to apply. It was supported by voluntary contributions ; and although he devoted all his energies to the success of the institution by a regular and unwearied attendance to his duties as Surgeon, yet he was always a large contributor to its pecuniary wants. Hundreds availed themselves of the advantages offered by this opportunity of obtaining relief, and in many cases which came under our own notice, we could say truly that he made the blind to see. He was a kind friend, and an interesting companion, and his place will not easily be filled in the affections of those who were fortunate enough to avail themselves of his kind and skilful services as a surgeon.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR NOVEMBER, 1867.

1 Companies.	2 Date and Place of Collection.	3 Total solid impurity in 100,000 parts.	4 Organic Carbon.	5 Nitrogen as Nitrates and Nitrites.	6 Ammonia.	7 Total Combined Nitrogen.	8 Previous Sewage Contamination (Estimated.)	9 Total Hardness.
THAMES.								
Chelsea ...	Nov. 11th. Cab-rank, Horse Guards.	29·6	·263	·222	·003	·242	1920	20·5
W. Middlesex ...	Nov. 11th. Cab-rank, Portland-row.	28·4	·286	·225	·002	·245	1950	20·6
Southwark and Vauxhall ...	Nov. 11th. Barclay's Brewery.	29·8	·259	·183	·001	·203	1520	21·7
G. Junction ...	Nov 11th. Cab-rank, Woodstock-street.	29·8	·277	·210	·001	·229	1790	22·8
Lambeth ...	Nov. 11th. Cab-rank, Lambeth-road.	31·0	·268	·229	·001	·249	1980	22·8
OTHER SOURCES.								
New River ...	Nov. 19th. Haverstock-hill.	25·2	·104	·187	·001	·208	1560	18·5
Ditto Filtered through animal charcoal ...		24·8	·075	·176	·001	·179	1450	18·6
E. London ...	Nov. 20th. Slater's Lampblack Works, Old Ford-road.	30·2	·118	·156	·001	·164	1250	21·8
Kent ...	Nov. 22nd. Deptford Railway Station.	42·0	·113	·364	·001	·369	3330	29·1
Loch Katrine ...	February. Glasgow.	3·28	·256	·031	·002	·041	0	0·3
Lancaster ...	September. Lancaster.	3·54	·157	·036	·001	·038	0	0·1
Manchester ...	November. Manchester.	6·8	·242	·001	·001	·028	0	2·7

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, and by the water supplied to the towns of Lancaster and Manchester, when submitted to the same analytical processes. The numbers in columns 3, 4, 5, 6, 7, 8, and 9, all relate to 100,000 parts of the waters. The table is to be read thus: 100,000 lbs. of Chelsea water collected on 11th Nov., at the Horse Guards cab-rank contained 29·6 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·263 lb. of carbon. This solid impurity also contained ·222 lb. of nitrogen in the form of nitrates and nitrites, besides ·003 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·242 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 1920 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames or its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been entirely converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 20·5 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The waters delivered by the Companies drawing their supply from the Thames, exhibit a considerable increase of both mineral and organic impurity, as compared with last month. The purefying effects of the vegetation in the bed of river are now ceasing, on the approach of winter, and, as a consequence, the products derived from previous sewage and manure contamination are, to a great extent, retained in the waters. The Chelsea and Southwark Companies' waters were only slightly turpid when drawn from the mains; the remaining waters were perfectly transparent.

The animal charcoal, through which the New River Company's water was passed, has now been in constant use for six months, nevertheless, the amount of organic matter left in the water after passage through the charcoal has only just perceptibly increased. On the 1st of June, 100,000 parts of the filtered water contained ·07 part of organic carbon, and no organic nitrogen, whilst, on the 19th November, 100,000 parts of water passed through the same charcoal contained ·075 part of organic carbon, and ·002 part of organic nitrogen.

ROYAL COLLEGE OF CHEMISTRY, London, Nov. 30, 1867.

EXTERN MATERNITIES AND LYING-IN HOSPITALS.

BY LOMBE ATTHILL, M.D., DUBLIN UNIVERSITY, FELLOW KING AND QUEEN'S COLLEGE OF PHYSICIANS, EX-ASSISTANT PHYSICIAN ROTUNDO HOSPITAL, &c.

THE question of the comparative value of lying-in hospitals and extern maternities, has recently been discussed in almost every one of our medical periodicals, and as it is of such vast importance to all classes, especially to the poor, for whose benefit these charities were founded, hardly any excuse is needed for my venturing to make some observations on the subject. As far as I can judge, from reading the various remarks which have recently been published, the writers appear to have thought the mortality from puerperal fever the only phase of the question worthy of consideration. Is this just? and are the lives saved of no value?

It seems to have been taken for granted that the mortality of lying-in hospitals is necessarily greater than that of extern maternities, and this, evidently, is founded on the belief that a greater proportion of deaths occurs from puerperal in lying-in hospitals than in maternities. No one will, however, I presume, say that deaths from all other causes hold the same proportion in the two classes of maternities, and I think that the arguments of those who desire to abolish lying-in hospitals would be much modified, if due allowance were made for the lives which are undoubtedly, and that not unfrequently, saved in difficult and complicated cases by the superior care and attention patients receive in a well conducted lying-in hospital, and which it would be impossible to afford to extern patients, dwelling, as the vast majority of them do, in miserable rooms, occupied, probably, by a numerous family, if not also by lodgers or another family.

The proposition I lay down for consideration then is, grant-

ing, for the sake of argument, that a greater number of deaths occur from puerperal fever in lying-in hospitals than in extern maternities, what allowance is to be made, as an offset against these, on account of the lives saved by the superior advantages afforded to the poor puerperal patient in a well conducted lying-in hospital. Before, however, entering on this question, I must protest against any definite opinion being based on the statistics of extern maternities, as at present taken. Their inaccuracy has been before now repeatedly demonstrated, and has been freely admitted to me by the physicians attached to them, not only in this city, but elsewhere. Circumstances enable me to confirm this from my own experience; for several years I did duty as medical officer of the South Eastern (now Canal-street) Dispensary District. At that time, the Cumberland-street Lying-in Hospital and Maternity was in existence, and I was repeatedly called on to visit patients who had been recently delivered, and who had been attended in their confinements by pupils from that hospital. These were cases who, making bad recoveries, or being attacked by some intercurrent disease, sought advice from the dispensary. As a general rule, I found that they had not been visited by any one from the Lying-in Hospital subsequent to delivery, they consequently appeared in the returns of the charity as deliveries, and no record appearing of the result, were of course classed as recoveries. The deaths which occurred were never known, save to the medical officers of the dispensary district. This system continues, and will continue, in every city where two charities occupy the same ground. The woman, when in labour, applies to the hospital, the pupil on duty attends; the labour terminates favourably; he returns to the hospital, enters it in the Register and goes his way.

If fever or any other disease set in, to whom does she apply? Seldom to the hospital, for she cannot tell by whom she may be visited, but to the dispensary, whose medical officer is known to all in the district; and who, probably, has visited her, or at least some neighbour oftentimes before. Again, I repeat, that the statistics of any extern maternity are worthless, and worse than worthless, because they lead to erroneous conclusions, and will ever continue to do so till a paid and responsible officer visit *every* patient daily for a period of not less than a week from the date of delivery, and record the result; nor will that alone be sufficient, he must, in all cases of protracted recovery, arising from whatever cause it may, watch the patient to convalescence or death; the statistics will remain worthless if they merely record the admission of the patient into some general hospital. I fear it will be long ere we can hope for such statistics as these. But to return from this long, yet unavoidable, digression to the original question, I wish to consider what proportion of lives are saved in a well regulated lying-in hospital, which would probably be lost if attended at their own homes. This is a question which manifestly admits but of an approximate answer. The deaths appear recorded with unerring accuracy, but the lives saved are an unknown, and (if one may judge from the silence on the subject) appear to be considered an unimportant quantity. Let us see if they cannot be measured with an accuracy at least as great as that with which the mortality of extern maternities are recorded. For the present, and for the sake of argument, I will suppose that all ordinary cases of natural labour, do as well amid the want and squalor of their own wretched abodes as in the well-ventilated wards of a Lying-in Hospital. But is it possible to imagine that this can be so in difficult or complicated cases. Take, for instance, one of placenta previa, the life of mother and child depending on the prompt and judicious interference of a well-skilled physician; will such men as those who are the heads of our lying-in hospitals be always at hand in the purlieus of a city, and yet half-an-hour's delay may make the difference of life or death to two beings. Take, again, a case of convulsions occurring in some out of the way lane, the terrified pupil helpless to aid but fearful to leave his patient. In a lying-in hospital, prompt delivery by version or the forceps might save at least one human life out of two. Need I go farther? I could if I would enumerate many others, not ideal, but seen by myself; say a case of shoulder presentation impacted in the pelvis, and no alternative left but to eviscerate the child, even if the mother escape death from rupture of the uterus. Here, again, human life would have been saved had not the well-intentioned but unskilled attendant failed to distinguish between the shoulder and the head. Once more, we have the half-starved mother dying from hæmorrhage in the third stage of labour. Again human life would have been saved, not the mother's only, but that of her now orphan child, left to die of neglect, had a skilful hand and the necessary appliances been near, and not required to be obtained after a long and fatal delay, from the distant maternity. Remember I state facts within my own knowledge, not mere fiction. Unfortunately we have not the means of giving the percentage of lives saved annually in a lying-in hospital, admitting, say 2000 cases a-year. We can, however, make some approximation to the truth, and I think it will be admitted that they will equal the number carried off by puerperal fever, even supposing no case of that disease were to occur in the miserable abodes of the poor patients.

I shall briefly lay before the reader some remarks, founded on the returns of the Rotundo Hospital during the seven years' mastership of the late Dr. Shekleton; during three and a half years of which period I resided in the hospital, first as pupil, and then as assistant. I am indebted to the admirable tables, compiled by Drs. Johnston and Sinclair, for the following facts and figures. During Dr. Shekleton's mastership there occurred 24 cases of unavoidable hæmorrhage, of which 3 died from the direct effects of the hæmorrhage, and 2 from subsequent phlebitis. In one other case, which terminated fatally, a post-mortem examination proved that extensive disease of the kidnies existed; of these 6 cases two were "pulseless" on admission: one, "pulse scarcely perceptible at all;" two, (one the case of Bright's disease) "much exhausted;" one "in a state of extreme exhaustion," having been treated at her own home for this hæmorrhage, which had lasted for some weeks.

There were 81 cases of accidental hæmorrhage, of which 4 died of the hæmorrhage; *all four, without exception*, having been admitted in a sinking state, from the loss of blood which had previously occurred. Is it not fair to infer that these 4 would have been saved equally with the other 77, had they had the advantage of hospital treatment at an earlier period, or previous to its occurrence? There were 60 cases of presentation of the upper extremity, of which but 3 died, one of these was brought into the hospital with the uterus *already ruptured, and having been in labour for* 27 *hours*. In the same period there were 63 cases of convulsions, with 13 deaths; of these 63 cases it was found necessary to deliver, artificially, no less than 50; of the 13 deaths the following was the condition of 6 at the date of admission:—1st. "Had been in convulsions from the previous evening;" 2nd. "In a semicomatose condition, os dilated." 3rd. "Had been in convulsions from the evening previous, was in a fit when admitted, semi-conscious." 4th. "Quite unconscious." 5th. "Insensible." 6th. "Had been four days in labour, with convulsions." I ask any impartial reader what hope was there for these cases? And if I may not infer that some might have been saved, am I not justified in, at least, excluding them from all consideration, and saying that there were 57 cases of convulsions, with 7 deaths. We have thus, in all, 228 cases of the most fatal forms of complicated labours, out of these 26 died, but from these we may fairly deduct the 6 cases of convulsions just alluded to, the 4 cases of accidental hæmorrhage brought into hospital in a dying state, one case of arm presentation, with uterus rupture prior to admission, and six cases of unavoidable hæmorrhage, which had existed for a long time previous to their being treated in the hospital. To summarize the deaths in the Rotundo during the period under consideration from accidental hæmorrhage, were 4 out of 81 cases, or 1 in 20; from unavoidable, 6 out of 18, or 1 in 3; from convulsions, 13 out of 63, or 1 in 5; of presentations of the upper extremity, there were 3 out of 60, or 1 in 20. Total, 26 deaths out of 228, or a fraction more than 1 in 9.

Now, let us compare these figures with the statistics compiled from every source—Lying-in hospitals, Extern Maternities, and even private practices. I find that Dr. Churchill gives the ratio of deaths as follows:—

Of accidental hæmorrhage,	...	1 in 3
Unavoidable ,,	...	1 in 3
Convulsions, ...	...	1 in 3½
Presentations of upper extremity,		1 in 9

Being a total of 1 in 4½, just double that of the Lying-in Hospital. I think I have shown that the percentage from these causes would have been double, but for the relief afforded within the walls of the hospital, and I, therefore, claim for it the credit of having saved 26 lives during the septennial period we are considering, since, under other circumstances, they would have amounted to 52; but, further, we have a right to deduct from these 26 deaths the 17 cases which were brought into the hospital in a moribund state. This would reduce the legitimate deaths to 11 (one in 20 4-5th),

which would give to the hospital the credit of saving 41 lives, being the difference between 11 and 52, which would be the mortality according to the tables compiled by Dr. Churchill.

Now, the total number of deaths from all forms of peritonitis during Dr. Shekleton's mastership were 75, but of these 75 cases, 34 occurred as the consequence of difficult or complicated labour, and it is almost certain that they would have died equally of it, no matter whether delivered in the hospital or in the abode of opulence. The genuine cases of puerperal were but 41, viz.—those that occurred after natural labour. I consider, then, that I am correct in saying that there were at least 41 lives saved by means of the hospital, against 41 deaths of puerperal fever, even supposing (a very unlikely thing indeed) that not one would have died of that disease had the patients belonged to an extern maternity.

If the reader will carefully weigh the figures I have given, he must, I think, admit that many valuable lives are annually saved in a lying-in hospital which would have been lost had the women been delivered at their own homes. I believe the statistics I have quoted prove that the mortality under the four great heads of "Accidental hæmorrhage," "Unavoidable hæmorrhage," "Convulsions," and "Presentations of the upper extremity," are one-half less than they would be under less favourable circumstances; and this without taking into account the gain in other forms of difficult and complex labour, and that of infantile life. I desire, however, to be as brief as possible, and I shall add no more at present; but I hope on a future occasion to make some remarks on this subject.

One other important consideration has also been hitherto left out of sight. The benefit of the sick poor is the first object, and nothing should be permitted to outweigh it; but all hospitals, it must be remembered, have another function to perform, and it is their office to act as clinical schools for the education of those destined in future years to be the means, under God, of relieving pain and saving human life. The two functions, far from being antagonistic, go hand in hand, for the hospital surgeon or physician is stimulated to, if possible, greater exertion, and to the exercise of greater care, by the knowledge that many intelligent students are constantly watching his every act. In the lying-in hospital the student is under the constant surveillance of the resident physicians, who see every case as it is admitted, and who are ever at hand to point out any deviation from natural labour, or detect and explain the errors in diagnosis. In fact he is in the same position as the student in any other hospital. He can watch the progress of the case as he goes the daily rounds with the physician, and has the opportunity of seeing the various affections to which puerperal patients are liable; but the student of an extern maternity has no such advantages. He is sent to a case in some wretched abode of want, alone, or it may be, with a pupil a little more advanced, as far as standing goes, than himself, but in knowledge, I fear, too often on a par—"a blind leader of the blind." The patient is delivered, and we will suppose all goes well, but the pupil, save that he has seen a child born, is generally as ignorant of all that relates to midwifery as the first-year's pupil in a medical hospital would be if left to spend an hour there without any one to instruct him as to the nature of the cases he sees around him.

In the great majority of cases that patient is never seen by him again; the pupil seldom returns to the hospital till his next day of duty comes round, and he must be an ardent student who, even if he were able to find his way without a guide, would day after day wander through the alleys of the Liberty, or the noisome lanes off Townsend-street, to visit a patient whom he hopes needs no special treatment. Under such a system he gains but little knowledge of practical midwifery, of the after treatment, nothing.

It is not my intention, in this brief paper, to enter into the question of the cause of puerperal fever, its mode of propagation, or the best means of preventing the occurrence, or checking the spread of that fatal disease, the subject is too important to be treated hastily or imperfectly; all honour is due to those who can, and will, give their time and abilities to this great and philanthropic work. I firmly believe that puerperal is occasionally epidemic, that it is governed by laws as fixed as those of any other disease, and I trust I shall yet see the day when it will be all but banished from our hospitals, or be, at least, as rare there as in extern practice (though that is not so rare as has been supposed); but one thing I cannot admit—viz., that the mere accident of a number of lying-in women being under the same roof, of itself gives origin to puerperal, though, when once it appears under such circumstances, it spreads. The statistics of the Rotundo Lying-in Hospital are, in my opinion, conclusive on this point, for the deaths bear no relation whatever to the number of patients admitted, which they necessarily would, had the mere aggregation of lying-in women been the cause; thus, in the seven years from 1815 to 1821 inclusive, during which the enormous number of 23,365 women were delivered in the Rotundo Hospital, being by far the greatest number ever delivered in any seven consecutive years, 309 deaths occurred from all causes, while during the seven years, from 1855 to '61, being the latest period of which I have returns, there were 10,782 deliveries, and 229 deaths. In the first named septennial period, the deaths were at the rate of 13 per 1000, in the latter at very little under 20 per 1000. Yet, remember, that, in the one case, the patients must have been vastly more crowded than in the latter, more than double the number of deliveries having taken place in the same wards. It is plain, then, that causes other than the mere aggregation of lying-in women must be sought for ere puerperal fever can be banished from our hospitals. In conclusion, I must add that I have not been influenced in the writing of these observations by any desire to vaunt one particular institution above another. I should much regret were I to injure maternities; they are institutions which do much good in their own sphere. On the contrary, I would advocate an extern department being attached to every lying-in hospital, no matter how great might be its capabilities for receiving intern patients, not only because many poor women are prevented by various circumstances from becoming intern patients, but also in order that, should puerperal fever occur, the reception of patients might be stopped without serious injury to the poor. I have avoided, as far as possible, naming any institution, and have only done so in the case of the Rotundo, because I was obliged to have recourse to its statistics, there being no other British lying-in hospital of any magnitude from which to obtain the necessary data. I should add that I selected the period of Dr. Shekleton's mastership, merely because the statistics of that period are so admirably and accurately compiled, and because I can myself vouch for their truthfulness.

Note.—I am aware that in many extern maternities a resident pupil is paid a small salary, his duty being to visit the patients subsequent to delivery. Such a system, however unavoidable, is most inefficient. A pupil is not the person to whom so important an office should be entrusted, and, though there are exceptions, these very irksome duties are seldom efficiently performed.

In support of my assertion that, when attacked by illness subsequent to delivery, patients who, during labour, were attended from an extern maternity, seek aid from the Physicians of their Dispensary Districts, I may quote the following paragraph from a letter I have just received from one of these gentlemen:—"I frequently have to attend patients who have been recently delivered, and who had been attended during their labour by pupils from an extern maternity."

Correspondence.

MR. HARRY LOBB'S PAMPHLET ON "CURATIVE ELECTRICITY."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As I am anxious to disassociate my name from any connection with Mr. Harry Lobb's recently published pamphlet, entitled "A Popular Treatise on Curative Electricity," I should feel obliged by your insertion of the following explanation of the circumstances which have induced me to decline to continue the agency.

Some time since Mr. Lobb applied to me to undertake the sale of his pamphlet. Knowing him to be a duly qualified member of the profession, and in full reliance that nothing contrary to the well understood rules governing the contents and arrangements of Medical Works, would be published in the work in question, or adopted in the author's practice, I at once consented.

But having since heard that Mr. Harry Lobb was associated at his Brighton establishment with a Mr. La'Mert, who had assumed the name of Lambert, I felt bound to make some enquiries into the matter, and consequently wrote Mr. Lobb the following letter:—

"H. Lobb, Esq. "Nov. 16, 1867.

"SIR,—I have been informed by good authority, that you do

not yourself attend at No. 2, Old Steyne, Brighton, but are represented there by a Mr. La'Mert, who has assumed the name of Lambert.

"Whilst I do not dispute your right to associate yourself with any parties you may please, I cannot allow my name to appear as publisher of a work with a knowledge of such an association.

"I have therefore to request that you will explain this affair.

"If this cannot be done to my satisfaction you will please immediately cause my name to be omitted from all future advertisements of your pamphlet, on "Curative Electricity," as well as from the title page of the pamphlet itself. Other steps will be taken to show publicly how my name has been obtained.

"Awaiting your answer, no copies of the pamphlet will be sold by me.—Yours respectfully,

"H. BAILLIERE, per C. E. BAILLIERE."

Mr. Lobb happening to call just as I finished this letter, I handed it to him. Having read it, he admitted the correctness of my information, and said he would reply to my letter in writing, but this he has failed to do. He at the same time assured me that, although the Mr. La'Mert *alias* Lambert, with whom he was associated, was a son of Joseph La'Mert, *alias* Curtis, of Albernarle-street, yet he was a duly qualified and registered member of the profession. However, on applying at the Medical Registration Office, Soho-square, I do not find the name of any son of Joseph La'Mert (*alias* Curtis) registered. Under these circumstances, I have declined to continue to sell the pamphlet, and in consequence of this refusal, Mr. Lobb's solicitor has sent me a letter, threatening legal proceedings against me.

I have thought it due to the character of our firm to make this explanation, and I trust the course I have adopted will meet with the approval of the public, and of the profession.—I remain, sir, yours very respectfully,

H. BAILLIERE, per C. E. BAILLIERE.

THE HARVEIAN SOCIETY OF LONDON.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—My attention has just been called to your report of the proceedings of the Harveian Society, on November 7th, contained in your journal for November 20 ; and as your reporter has put some remarks in my mouth which I never made, I should feel obliged if you would kindly allow me to rectify the mistake.

I am made to say that I knew a "case where the persons were in good circumstances, and where the husband, a healthy man, manifestly took the disease from his wife ; and that another similar case had occurred to my knowledge." What I did say was, that two cases had come under my notice which induced me to believe that, under certain circumstances, a husband might *give* the disease to his wife, through the semen, in the same way as secondary syphilis could be transmitted through the semen from husband to wife ; that in both cases alluded to, there had been, during the last years of life, a morbid increase of sexual desire and connection had taken place very frequently indeed ; that both husbands were intensely consumptive, while the wives had been perfectly healthy, previous to marriage; that in one case the wife died ten months after the death of her husband, from consumption, and, in the other, a year and eight months afterwards from the same disease ; and that both families lived in very good circumstances, and that there was no history of consumption in the wives' families.

I am further made to say that "a physician of the Brompton Hospital, some years ago, retired to Bath with phthisis, which he believed he had contracted at that hospital." I never made this remark, nor did I say anything at all similar to it.—I am, sir, your obedient servant,

JULIUS ALTHAUS, M.D.

THE APOTHECARIES' COMPANY OF IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In reply to a letter in your last issue, headed as above, allow me to inform "Anti-monopolist" that the licence of the Apothecaries' Company is not purchaseable. A preliminary educational examination must be passed ; an apprenticeship of from three to five years (formerly it was seven years), must be served in a medical establishment, where a knowledge of the properties, uses, and doses of medicines will at least be acquired, and this of itself is of no small importance. A course of professional education must then be gone through, which, on comparison, I think will be found equal, if not superior, to that required by most licensing bodies for a licence or degree in medicine. Why, then, I ask, is not the licentiate of the Apothecaries' Company to be allowed to practice a profession for which he is by education so well prepared? Merely, as it appears to me, that he may not come in the way of some gentleman who, though styled a physician, or L.R.C.S., may yet know very little about physic. The writer has, on more than one occasion, saved life by correcting the blunders of such men. In one instance, two and a half grain doses of strychnine were ordered. Again, when do we hear of poisonings in this country, so frequent in England, where the compounding of medicine and the sale of groceries are often carried on in the same establishment, and the grocer is also the chemist.

All honour then, I say, to the Apothecaries' Company for their determination to enforce the law, and to protect the public and the profession from men who may call themselves chemists, but who have rarely gone through any course of education, either preliminary or professional. If they don't do so, they will soon lose the esteem and confidence of the public and the profession, and their licence will not be worth asking for.—I am, Mr. Editor, yours truly,

PRO BONO PUBLICO.

PHELAN *V.* SINCLAIR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—May I request that you will publish the following correspondence.—Yours, &c., DENIS PHELAN.

Shangana-terrace, Killiney, 25th November, 1867.

DEAR SIR,—I find the following passage in your letter of 3rd October, published in the MEDICAL PRESS AND CIRCULAR, of the 20th inst :—"As I have said before, Mr. Phelan's attack, for it is an attack, and one which has had its" (word not legible, but probably is "origin"), "long since, is personal against the Rotundo Hospital." As it appears from this passage that you allude to some matters arising out of my official or other connection with that institution, on account of which you consider that I have made a personal attack on it, I request you will inform me, specifically, to what you do allude, that I may fully understand it.—I am, your obedient servant, DENIS PHELAN.

Dr. Sinclair.

28, Frederick-street, Dublin, Nov. 26, 1867.

SIR,—In reply to your note of the 25th inst., I have merely to refer you to my pamphlet.—I am, sir, yours, &c., &c., &c.

Denis Phelan, Esq.

28th Nov., 1867.

SIR,—I have received yours of the 26th inst., and have looked over your pamphlet, in which I find no allusion to any circumstance of the nature of that which is implied in the passage of your letter to Dr. Kidd, respecting which I requested an explanation. As you give none, I suppose it is fair to assume that you can give none.—I am, sir, yours, &c., &c.

Dr .Sinclair. DENIS PHELAN.

THE APPOINTMENT OF POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I did not expect that it would be inferred from my letter that I was altogether opposed to Poor-law Medical Officers being appointed for a permanency. But I consider it bad in principle that they are appointed for, and often keep their office for life. I had in my mind when I wrote to you some recent regulations issued by the Paris administration, by which hospital physicians and surgeons are subjected to a limitation of service as to age. Some British Institutions also act on this principle.. I further know, that Poor-law Medical Officers in Prussia are elected for three years, but they may continue in office for the same term if no notice is given them six months before the expiration of it.—(Regulatif of 1845). In Paris also, they are liable to receive notice. (Act of 10th January, 1849, "Its peuvent être révoqués sur l'avis du conseil de surveillance.") As it is in this country the unrestricted power exercised by Boards of Guardians which makes the position of medical officers insecure, and subjects them to indignities, the simplest remedy would be to divest them of that power, and place it in the hands of a central board, who will not be acted upon by petty notices.

I am glad to hear that irresponsible deputies are rare, and wish they get even rarer in future. Lastly, I do not consider, in the least, Poor-law Medical Officers' appointments valuable in a pecuniary sense of the word, but as stepping-stones into practice for our younger professional brethren.

Begging pardon for encroaching upon your valuable space,—I am, sir, yours, &c. F. OPPERT, M.D.

Medical News.

EDINBURGH OBSTETRICAL SOCIETY.—The following office-bearers were elected for the next two years at the meeting held on the 27th ult.:—*President*, Dr. Burn. *Vice-Presidents*, Drs. W. Bryce and J. A. Sidey. *Treasurer*, Dr. James Young. *Secretaries*, Drs. R. Peel Ritchie and G. Stevenson Smith. *Council*, Drs. Menzies, Keiller, and Stephenson.

THE Surgical Society of Ireland will hold its opening meeting on Friday next, the 6th inst., at the Royal College of Surgeons, when the President of the College, Robert Adams, M.D., will deliver the opening address.

NATURAL HISTORY SOCIETY OF DUBLIN, 1867.—A General Meeting of the Members will be held at the Royal Irish Academy House, Dawson-street, on Thursday evening, the 5th of December, 1867. Robert M'Donnell, M.D., William Archer, honorary secretaries. Papers for the evening. Letter from Mr. A. E. Graves, dated, "Schooner Yacht, 'Ierne,' Dunmore East, 29th August, 1867," recording the occurrence of flying fish on the south coast. Dr. W. Frazer, "On *Bothriocephalus latus*, with observations on its claim to admission into the British Fauna." Dr. Robert M'Donnell, F.R.S., M.R.I.A.—"On a Change of Colour in a Hen." Those members who have not already paid, are reminded that the subscriptions for 1867-68 became due on 1st November last, and are requested to forward the amount at their earliest convenience to Mr. Arthur Andrews, Treasurer, 20, Dame-street. The chair will be taken at a quarter-past eight o'clock.

PROFESSOR NEWMAN, of Königsberg, who has been working upon the subject of the action of electricity on white blood-corpuscles, has pointed out some very remarkable facts. He finds that under the influence of strong induced currents the white corpuscles of the frog swell out, their walls become quite smooth, and a clear space is left between the wall and the granular nucleus in the interior. The molecules in the cell commence, too, to exhibit rapid movements.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, only on one side of the paper, and *must be* in the hands of the Printer eight days previous to their appearing.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

The following communications are unavoidably deferred till next week:—

The Wine Report, No. V. Macilwain on Lithotomy and Lithotrity. Dr. W. D. Moore's Foreign Medical Literature, on Multiple Strictures in the small Intestines. Dr. Henry Kennedy on Position as a Cause capable of Altering Morbid Sounds in the Heart. Case of Hæmorrhage in the Ninth Month of Pregnancy, by E. W. Adrien, M.R.C.S., etc. Letter on Inert Action of Ergot during the Latter Months of Pregnancy.

We have received an important letter from Dr. Leet, respecting the Irish Apothecaries' Company, which we hope to publish in our next.

G. W. Gray.—Your letter has been forwarded to the gentleman named.

G. G. Brighton will please receive our best thanks.

T. R.—The Journal was printed when the addition you wished inserted came to hand.

Dr. Julius Althaus.—We have printed your letter in full, that our readers may be able to compare it with the original report. At the same time apologising for any accuracies that may have crept in.

Dr. Ashe.—The communication received with thanks, and shall appear with Proceedings of Opening Meeting next week. You shall have a private note.

Messrs. Ridley & Co.—Letter on our Report on Wine unavoidably postponed till next week.

The report of the meeting of the Harveian Society, November 21st, is in type, and shall appear in our next.

Mr. Henry, Manchester.—The paragraph arrived too late for insertion.

Brighton.—Received, but scarcely suitable for our columns.

S. W.—Your book should be sent direct to the office, if you so desire it to be noticed. We cannot be expected to purchase every work that is published, merely for the purpose of reviewing them.

We are much indebted to Dr. S., a subscriber of twenty years' standing, for the kindly interest he has shown towards this Journal, by the introduction of *two* new names to our subscribers' list, and for the complimentary letter which accompanied them.

Advertisements.

NOTICE TO ADVERTISERS.

The Medical Press and Circular

OFFERS UNUSUAL ADVANTAGES

FOR the Insertion of announcements from its extensive and largely increasing circulation in each of the three divisions of the United Kingdom and the Colonies. Being also supplied to the Hospital Libraries, &c., it will be found a most valuable medium for Advertisements of Books, Vacancies and Appointments, Sales, and Transfers of Practices, Surgical Instruments, Chemicals, and Trades generally.

The scale of charges is as follows:—

Seven lines and under	£0	3s.	6d.
Per line afterwards	0	0s.	6d.
One-quarter page	1	0s.	0d.
Half ,,	1	15s.	0d.
One ,,	3	0s.	0d.

The average of words per line is twelve.

When advertisements are given for a series of insertions, a very considerable reduction from the above scale is made.

☞ Advertisements for Insertion in this Journal must be at the OFFICE, on MONDAY, by THREE o'Clock.

THE MIDDLESEX HOSPITAL, W.

NOTICE is Hereby Given, that one of the Appointments of RESIDENT PHYSICIAN'S ASSISTANT will become vacant early in December. Board and Residence are provided by the Hospital. Candidates must be medical pupils of this Hospital, or must be prepared to become so; and must hold a legal medical qualification. They must also be prepared to enter on their duties immediately. Application to be made in writing to the Secretary, on or before Friday, the 6th December.

Candidates are to attend personally at the Board-room of the Hospital, on Saturday, the 7th December, at 2.30 P.M.

By order of the Medical Committee,
Nov. 23rd, 1867. HENRY N. CUSTANCE, Secretary.

THE LONDON SURGICAL HOME,

FOR Diseases and Accidents of Women; for the Reception of Gentlewomen and Females of respectability, upon a weekly payment, under the sole management of Mr. BAKER BROWN.

The Private Medical Attendants of the patients are invited to visit them, and to meet in consultation before treatment.

Full particulars can be obtained on application to the Lady Superintendent.

18, Stanley-terrace, Notting-hill,
London, W., 30th November, 1867.

Westmoreland Lock Hospital.

WINTER SESSION, 1867-68.

A COURSE OF CLINICAL INSTRUCTION on the Symptoms, Forms, and Treatment of Primary, Constitutional, and Infantile Syphilis, &c., will be delivered in this Hospital during the present Session.

Surgeons.

THOMAS BYRNE, M.B.T.C.D., Fellow of the Royal College of Surgeons in Ireland.

BENJAMIN F. M'DOWELL, M.B., Univ. Dub., Licentiate of the King and Queen's College of Physicians, and College of Surgeons, Ireland; Lecturer in the Ledwich School of Medicine; Physician to the Sailors' Home.

The Hospital contains 150 Beds, an average of about 70 of which are constantly occupied by Instructive cases.

The Surgeons visit the Hospital daily about Twelve o'clock.

Further information as to Fees, &c., may be obtained at the Hospital between the hours of Eleven and One o'clock daily.

Apothecaries' Hall of Ireland, 40 Mary-street. The following new Medicines and Preparations are manufactured in the Laboratory on the premises, and a supply constantly on hand:—

THE NEW PREPARATIONS OF THE PHARMACOPŒIA, 1867.
TICHBORNE'S VESICATING COLLODION.

Tetrachloride of Carbon. Æther for Local Anæsthesia. Syrup of Phosphate of Iron, Quina, and Strychnia. Chlorate of Quina. Carbolic Acid, pure and crude (the latter free from Sulphuretted Hydrogen).

ACCIDENTS WILL HAPPEN!!

EVERYONE should therefore provide against them.
£1,000 IN CASE OF DEATH, or £6
Per Week while Laid up by Injury, caused by
ACCIDENT OF ANY KIND
(Riding, Driving, Hunting, Shooting, Fishing, &c.),
May be secured by an Annual Payment
Of from £3 to £6, 5s. to the
RAILWAY PASSENGERS ASSURANCE COMPANY,
CORNHILL, AND 10, REGENT-STREET, LONDON.
WILLIAM J. VIAN, Secretary.

HEALING POWDER.

FOR BURNS, ULCERS, ERUPTIONS, EXCORIATIONS, AND TENDER SKINS.

PASMA.

A Preparation which has for years stood the test of Medical experience, as possessing HEALING PROPERTIES of a most marked and rapid character.

Price 6s. per lb.

Composition of Pasma.	Silica	30
	Magnesiæ Ozyd	12
	Aluminæ Oxyd.	6
	Ferri Prot. Oxyd	2
	Olyræ Amylum	50

PREPARED ONLY BY

CURTIS & CO.,
Pharmaceutical Chemists,
48, BAKER-STREET, LONDON, W.

NOTICE.—BEST QUALITY ONLY.—SAMPLES FREE.

ISLINGTON GLASS BOTTLE COMPANY WORKS, LONDON and YORKSHIRE. This Company supply only the very best MEDICAL GLASS BOTTLES and PHIALS, at the Lowest Prices. London Warehouses, 19, Bread-street-hill, Upper Thames-street, City, E.C., and 28, Copenhagen-street, Islington. E. & H. HARRIS and CO., Proprietors.

		per gross.
6 and 8 oz., any shape, plain or graduated,	Clear blue tinted	8s. 6d.
3 and 4 oz. ditto ditto		8 0
½ oz. White Moulded Phials	Of a very superior quality.	4 6
1 oz. ditto		5 6
1½ oz. ditto		6 0
2 oz. ditto		7 0

Measures, Pili Boxes and Corks, and all sundries, supplied to order.

The Improved FLINT GLASS BOTTLES, with Lip, a very superior article, in 6 Gross Crates, assorted to suit the convenience of purchasers,

3 and 4 oz. ...	9s 6d per gross.	10 and 12 oz. ...	16s 0d per gross
6 and 8 oz. ...	10 6 ,,	16 oz. ...	19 0 ,,

Immediate attention to country orders. No remittance required until the goods are received. Packages free. Goods delivered free within seven miles. Post-office orders payable to E. and H. HARRIS and CO., at the Chief Office, London.—Bankers, Alliance Bank. Established upwards of 80 years.

N.B.—Orders sent to either establishment will have prompt attention.

PLEASE NOTICE REDUCTION IN PRICE.—BEST QUALITY ONLY.

Great Saving in the Purchase of New Medical GLASS BOTTLES and PHIALS of the best Manufacture, at the NORTH LONDON GLASS BOTTLE WORKS, I. ISAACS and COMPANY, Proprietors.—Warehouses, 25 and 24, Francis-street, Tottenham-court-road, London, W.C., and 74, Shadwell-street, Birmingham. All orders sent to either establishment will be promptly attended to.

6 and 8 oz., any shape, plain or graduated,	Clear blue tinted	8s. 6d.	per gross.
3 and 4 oz. ditto ditto		8 0	,,
½ oz. Moulded Phials	Of a very superior quality	4 6	,,
1 oz. ditto		5 6	,,
1½ oz. ditto		6 0	,,
2 oz. ditto		7 0	,,

The Improved FLINT GLASS BOTTLES, with Lip, a very superior article, in 6 Gross Packages, assorted to suit the convenience of purchasers, at the following reduced prices :—

3 and 4 oz. -	9s. 6d. per gross.	10 and 12 oz. -	16s. 0d. per gross.
6 and 8 oz. -	10s. 6d. ,,	16 -	- 19s. 0d. ,,

Measures, Pill Boxes and Corks, and all Sundries, supplied to order.

A remittance not required till the goods are received. Packages free. Immediate attention to Country Orders. Goods delivered free within 7 miles. Post-office Orders payable to I. ISAACS & CO., at the Post-office, Tottenhamcourt-road.—Bankers, London and Westminster Bank (Bloomsbury Branch).

Established upwards of 70 years.

KINAHAN'S LL WHISKEY.
DUBLIN EXHIBITION, 1865.

This celebrated Old IRISH WHISKEY gained the Dublin Prize Medal. It is pure, mild, mellow, delicious, and very wholesome.—Sold in bottles at 3s. 8d., at the retail houses in London; by the Agents in the principal towns in England; or, wholesale, at 8 Great Windmill-street, London, W.—Observe the Red Seal, pink label, and cork, branded "Kinahan's LL Whiskey."

RACINE'S GENEVA WATCHES.
(their own Manufacture)

Cannot be surpassed for Neatness and Elegance of Finish.
33, NASSAU-STREET, DUBLIN.

CHRISTMAS.

ANOTHER NOVELTY IN CANDLES.

FIELD'S
PATENT PARTI-COLOURED CANDLES
IN SPIRALS OR STRIPES,

Of Rose, Green, Mauve, or Amber. Price 2s. 6d. per 1-lb. Box of Four Candles,

AS USED AT THE CITY RECEPTION OF THE SULTAN,
AND
AT THE LORD MAYOR'S BANQUET.

May be obtained of all Dealers in Town and Country.

Wholesale of—

J. C. & J. FIELD,
Upper Marsh, Lambeth, London.

PRICE'S SOLIDIFIED GLYCERINE (Patented).
GOLD MEDAL, PARIS, 1867.

The newest and best Toilet Soap, wears well, gives a rich and fragrant lather, is entirely free from cocoa-nut oil or excess of alkali, and contains half its weight of Price's Distilled Glycerine.

Retailed by all Chemists, Perfumers, &c., in 4d. and 6d. Tablets.

PRICE'S PATENT CANDLE COMPANY, LIMITED.

Belmont Works, Battersea, London, S.

TRANSPARENT CANDLES.

IF you only want something pretty to look at, without minding a little smoke and smell, and a little bending and running over if the room should happen to be rather warmer than usual, buy any of the very transparent low quality Paraffine Candles now sold freely everywhere at one shilling per pound: but if, along with beauty of appearance, you require steady brilliancy of light, and freedom from risk of these little occasional mishaps, tell your dealer to supply you with

"PRICE'S GOLD MEDAL PALMITINE CANDLES,"

which, though charged at a higher price per pound, are really cheaper when the difference of quality is taken into account. They are believed to be the very best substitute yet produced for real Wax and Spermaceti, now at such an extravagant price, and are being introduced in place of them in the West-End Clubs, and elsewhere, where excellence of quality is studied as well as economy.

Aerated Lithia Water.—Messrs. BLAKE, SANDFORD, and BLAKE, are prepared to supply the LITHIA WATERS (of which they were the original manufacturers under Dr. Garrod's instruction) of any strength prescribed by the Profession for special cases. Those in constant use contain two grains and five grains in each bottle, either by itself or combined with BICARBONATE of POTASH or PHOSPHATE of AMMONIA.—Also, Potash, Citrate of Potash, Soda, Seltzer, Vichy, and Mineral Acid Waters, as usual.

Blake, Sandford, and Blake, Pharmaceutical Chemists, 47, Piccadilly.

Aloina.—T. and H. Smith, the Discoverers of this

THE CRYSTALLINE PURGATIVE PRINCIPLE OF ALOES,

(vide "Edinburgh Monthly Journal of Medical Science," for Feb. 1851) continue to prepare and supply it. They have the gratification of knowing that the most eminent of the Profession prescribe it, to the exclusion altogether of the various kinds of aloes.

Orders executed direct, or through any Drug House, by T. and H. SMITH and CO., 69, Coleman-street, City, London, and 21, Duke-street Edinburgh.

Labels Cut by Machinery.—Adhesive for marking goods, 1s. per 1000: Dispensing or Chemical, 2d. per 100, kept in stock; with Name and Address, 2s. per 1000; Mixture Pill, &c., equally moderate. An assortment of Labels for all trades. Contracts with large consumers.

J. CROSS & SON, Engravers, Steam Machine Printers, Lithographers, and Stationers, 18, Holborn-hill, E.C.—Established 1818.

MOST IMPORTANT TO FAMILIES.
GUINNESS'S XXX PORTER.—J. BEBE invites attention to this Celebrated Porter in Bottle, being now specially ordered to invalids, for its nutriment and strengthening qualities, in fact it has been found, in great many instances, to supersede Wine in recruiting health and strength. Each Bottle is wired and tin-foiled, and is protected by his label and "Trade Mark." Prices are as follows. Terms Cash.

	Per doz.
Guinness's Celebrated XXX Porter (small bottles)	... 2s. 4d.
Guinness's Celebrated XXX Porter (large do.)	... 4s. 6d.

Ten Vans deliver daily in the city and suburbs, and orders sent by Railway to all parts of Ireland.

JOHN BEBE, Rectifying Distiller, Direct Wine and Brandy Importer.
18, THOMAS-STREET, DUBLIN.

Addresses.

ON RESEARCH IN MEDICINE.

By BENJAMIN W. RICHARDSON, M.A., M.D., F.R.S.,
PRESIDENT OF THE ASSOCIATION.

(Delivered at the St. Andrews Medical Graduates' Association, at the General Session, on Tuesday, December 3, 1867.)

THE honoured position to which you have elected me as your President is not less to be appreciated than to be feared. The office, while it bears such recognition as all earnest men must love, carries with it responsibilities which the least timorous must feel. We are making in this associational effort an experiment of power in the face of a critical world. The University we represent, encrusted with centuries of learning, can afford to have its name linked with no poor art; what has been, has been of the best; what is to be, must, in some sense at least, partake of what has been.

In that part of the University which we may call the medical part this care is more than ever demanded. Medicine, as represented in the University of St. Andrews, is under disadvantage. There no great school of physic exists in which the skill of the master may find scope for labour. Those who take Esculapian honours from our University must gain their knowledge elsewhere, and merely register it in the college calendar. Hence it has been common for the more favoured seats of medical lore to look upon us with some distrust; distrust which it is our duty to remove; to remove not by boasting, not by contention, not by complaint, and certainly not by despair; but by a manly and truthful exposition of our power by the side of power, of our industry by the side of industry, and by an earnest determination to prove that after all we are worthy of our vocation; in a word, by fair and noble and ennobling competition with our peers. Of us especially it must never be said,

> "Our sails flap idly when our busy prow
> Should grate the golden isles."

Recasting many times in my mind what on my part would most become this occasion, I have pushed aside many topics to light at last on one which comes to me most naturally, and by habit of thought most powerfully, I mean *Research in Medicine*. How shall we proceed best in improving the glorious work which by the divine ordination lies before us: how shall we save pain, how shall we remove disease, how shall we prolong life? These are the questions which should ever be present in the broad expanses of our minds, as in the details of our practice.

If in the ideas which I shall offer I should indicate courses of labour and preparations contrary to much accepted view, let me as a preliminary say, that whereas unquestionably I speak to influence, to influence many indeed besides those who do me the honour here to listen, I would not, if I could, speak by art to dogmatize, nor by stratagem to convince, nor by flattery to please, nor by poetry to fascinate: but I would speak, if it were possible, with firm honesty of purpose that which seems to me true, though it be heresy and even error itself.

ON THE FRAME AND CONSTITUTION OF MIND FOR MEDICAL RESEARCH.

The very first necessity in medical research is a proper frame and constitution of mind. This condition, partly natural, partly acquired on a natural talent, is such that it ruthlessly and inevitably reduces to a small minority all who truly live, and who when they are dead command. So great is this limitation that the twenty-three centuries from the Father of medicine have not brought twenty masters who, at this moment are powerful to command. Hippocrates still holds out the natural history of disease, Paulus remains the foundation stone of surgery, Paracelsus keeps the crucible, Vesalius as yet is the anatomist, Harvey still has his hand on the engine of the circulation, Willis is opening the skull case and unrolling the brain, Mayow continues to teach that there is a furnace in the animal body burning by the air, Black and Priestly tell the nature of the combustion, Haller adds physics to physic, and Boerhaave scientific chemistry. Pinel puts the psychical upon the physical, John Hunter links the physiology of animals inferior to that of the animal superior, Jenner stands out alone the revealer of a wholesale remedy; Humphrey Davy, escaping from his nitrous oxide box, and exclaiming to Dr. Kinglake, "Nothing exists but thoughts, the universe is composed of impressions, ideas, pleasures, and pains," —leads the beneficent advance of those who have abolished the horror of the surgeon's knife; and Leannec, pronouncing a diagnostic on such safe physical basis as to leave no improvement on his principles, heads the last of the

> "Tongues of our dead, not lost,
> But speaking from death's frost,
> Like fiery tongues at Pentecost."

To reach to the height of these men, not one of whom was indebted to accident for his success, the frame and constitution of mind is so rare that few are likely to near it. It is not difficult, nay it is very easy, for a man to become a great performer in the art of physic, especially in the chirurgical part, and thus excelling to become justly famous; it is easy for a man to become erudite; it is comparatively easy for a man of ingenious mind to become a great theorist, and by his speculations to live even briefly after his death; Cullen, Darwin, and Brown are noted examples in this line. Lastly by a spick and span method of ignoring fixed truths and inventing wild dogmas, it is the easiest of all things to gain a spurious fame, and even to live, as Hahneman has long lived, on the uplifted ignorance of the illiterate in science.

But the medical science which advances truly comes from labour developed far differently from aught or any of these. It is a labour *sui generis*. The mind that yields it must have one primary attribute—*impassion*. If a single earthly object has to be served by the labour, and that be its design, assuredly the labour is damned forthwith. The mind must be fervid to the extreme of tension, and rather break than yield, or no clear and certain sound shall be told. The mind to external friction must be smooth, relentless, impervious, otherwise impressions of fools may indent it and destroy its true nature. The mind, lastly, must be a mind within a mind, renewing itself and correcting itself by the renewal without any care as to its own past, or any care as to what shall seem to smallness outside, its variability or inconsistency.

To die daily, that is the attribute of this mind. To be tomorrow what it was not to-day, and to admit the fact. To be firm always in work and object, to be obstinate never in question of result; to know and feel that no other criticism is or can be so severe and just as its own; to be ready to give up the choicest belief under conviction, but not to allow the sneers or opposition of the ignorant or half-learned to quicken doubt. To look on praise with due scepticism, and to hold to nothing wrongly because the delighted world calls *sufficit*.

Such, according to my view, is the only frame and condition of mind by which medicine can advance in first principles of research.

I dwell on this because if the view be true it corrects a fundamental error in our systems everywhere. The accepted dogma is that medical science and art is to be advanced only by practice. Is that true? I entirely repudiate the dogma. That a man may practice, and practice well, and at the same time advance the art on primary principles, is true: but his two progressions must be essentially distinct. Into that which he would advance by first principles no trace of worldly life must enter; pierced in his nobler life by his lesser art he is from that moment disabled; he is no longer a unit, but a section of a crowd.

Hence I often fear lest in the future some of the great rewards of the deserving in medicine may come to those who live outside the pale: who, impassionless, uninfluenced by the discords within, seeing the feebleness within too shrewdly and scorning it, shall proceed alone and win without care by the development of truths which come only through serenity of observation.

This idea as to the men through whom science must rise direct from nature is supported by the great facts of history. It is quite certain that in all the sciences which have risen to exactitude, the leaders of those sciences have been men who worked for exactitude, and with no other object in their advancing studies. They have sometimes been men who have followed particular occupations for the means of existence, and have turned the profits of their calling to their higher aim and work; but that higher work itself was pure. Thus our own Kepler, first and prince of astronomers, while he lived in his little black tent, and turned it into a camera, and anon practiced medicine, was meanwhile making silently that divine, divine because pure, discovery of a common bond of suns and worlds, which won at last, led him to explain, in the grandeur of inspiration—"Nothing holds me. I will indulge my sacred fury! If you forgive me I rejoice; if you are angry I can bear it. The die is cast. The book is written to be read either now

or by posterity, I care not which. It may well wait a century for a reader, since God has waited six thousand years for an observer."

In like manner, our Harvey, labouring out the problem of his life, dissevers the work from the routine of professional toil, and yielding to Sir Simon Baskerville the éclat of the successful practitioner, so called, is content to discover what Sir Simon in his sublime practical wisdom never knew, except as to him a useless mystery,—the circulation of the blood.

THE UNITY OF RESEARCH.

After the frame and constitution of mind the order of research comes before us for contemplation. And here the first principle that requires to be recognised is the principle of unity. At this moment, by the incoherent recognition of this unity, we are tearing our science to shreds, and hoping that by combining the patchwork, we may produce a seamless garment. The conception is as feeble as it is motley; as the firmament is of one azure blue, as the heavens are in order, so the science that shall be perfect must be in harmony. Neither must that harmony be confined to one particular subject, it must extend to each science, and unite the one in the whole. From the rest of the science world, naught should separate the physician and surgeon, except the art, which, in fact, is the craftwork of the science, developing it but not producing. Shall one man be a mere physiologist, another man a mere pathologist, this a diagnostic, that a therpeutist? 'Tis trifling with nature. Test the matter by comparison. There is before us a mechanism; an engine which we have not invented, and the principles of which we know not. To investigate it, to learn it in its unity shall we divide ourselves into exclusive sections. Shall some of us take it to pieces, and figure each of its parts, its wheels and its pistons, its boiler and its condenser, its regulator and its tender? In truth they shall do much. Shall another set investigate the relations of those parts, their motion, their order of motion, the product? they shall also do much. Shall a third set take the engine when out of gear, and listen to its creakings and grindings, and shakings, and look into its chambers and tubes, and valves, and feel its throbbings and heavings? they shall do much. Shall a fourth division take the useless engine and examine its disabled parts in detail, and describe them? they shall do much. Lastly, shall a set, treating badly working engines, try to restore them by casting various fuels into the furnace, or by letting off steam, or cutting off excrescences, or patching up holes? they too, shall do much; and, in mere handicraft, they shall perchance sometimes do a vast deal. In a word, all shall do well who labour in their respective callings that far, and the division of labour shall be true, and the results natural within their legitimate bounds.

But if thus dividing ourselves into varied labour we allow the work, we take in hand, to isolate us from all the other work; if we make one work predominate, if we give fashion to one department, and hold that up as the beau ideal of our study; if we make our divisions play the role of independent centres, then we advance not a jot, not a jot, but become the creatures, rulers, or subjects, of petty sovereignties each alike, poor, proud, and powerless; and, however, so often the engine comes before us, sound or unsound, though it be before us under infinite variety of form every minute of our lives, and in a sense be the perpetual study of our lives, yet shall we, by the course we take, gain no more knowledge of the principle of the engine than the simple savage who looks at it for the first time with combined wonder, fear, admiration, and instinctive desire to know.

But in physic this divisional method of research, this centrifugal disintegration, is so much the passion that no man can be held learned who does not follow after it. A man may be a great pathologist, a great physiologist, a great anatomist, a great diagnostician, a great microscopist, but a great physician he must not be; and after isolating his own greatness as widely as possible from other greatnesses, and after what he calls carving out for himself a speciality, even in his own department he will be content, flying under the centrifugal propulsion, out of nature altogether, content to tell you that it is absurd, as indeed I fear it is, for him to try to master any subject save his own.

In the behests of science, in the interests of humanity, this centrifugal training and cultivation must really cease if we, as a body, would stand a power; it is landing us breathless, companionless, naked on the shores of folly, there to set up a squalid hut and think ourselves kings. When a man led by this propulsion prides himself as I have heard him pride himself, and his friends for him, that pursuing his speciality with almost supernatural vigour he has made so many thousand minute dissections and measurements of one particular organ of the animal body, I may laugh at the conceit of the individual, but I must weep if I contemplate solemnly the terrible and chaotic imbecility of a system, which allows such lost labour to pass for great labour, and which cheers the loss. If so simple a thing as a steam engine could never be learned off as an engine by such form of study, nor by any number of such isolated studies, how can it be expected that the unity of the animal machine can be advanced by research, in its case so infinitely less efficient?

I speak thus for the argument of science, I speak, feebly echoing the voice which proclaims everywhere the unity of nature and the all-creative intellect. But I am not unconscious that an argument from another side may be used against me, and which, on the principle of every man for himself, and heaven for us all, may be potently wielded. It may be urged that medical art and science, itself of the earth earthy, must move with the earth as it is; that external influences apart from it truly, but within the sphere of attraction must tell upon it; and that to succeed it must conform to what may even be the prejudices of mankind. This stated as a primary it may further be urged that the whole tendency of the present day is to division of labour; that there is an earnest belief, fair or false it matters not, in favour of such a division, and that medicine to thrive must run in the current with the rest, and even at the risk of scientific dissolution must divide! divide! divide! Is it indeed so? Grant it and medicine is in fragments, which rub together, make noise, crash and fall even to the lowest depth. Grant it and where shall we limit the disintegration? Grant it and how shall the world put on it any limitation, and why shall there not be as many classes of healers as there are organs, each healer having status according to the vital importance of the organ he treats. For my part, in humiliation I admit the existence of this theory, but in the face of truth I deny the necessity for it, or the wisdom of it. In this bending to the sordid gravitation of the earth, there is a deformity in our art which, except in Egypt, when she was sinking, has seen no light until the last thirty or forty fleeting years. In these years the Esculapian, forgetting his nobler part, has but degraded himself to a common level when he might have stood, in the earnest consciousness of his strength, above the level, and a power in the land. Where at this time, in this country, and in physic, is to be found the type of Richard Mead, who in his palace, where little children now pour forth their touching woes, could command the friendship of every illustrious man who visited our shores. Where is now the Physician who dare say to the Prime Minister of England liberate a just and upright man from the durance of the political prison, or my skill is in safe keeping from your frailty. Where is the representative of Haller who shall claim, and claim to win, an equal place with the princes of philosophy. Where are the great teachers of Leyden, Padua, and London? Where are the men, who like Harvey and Lower, in days when differences of rank were far more keenly appreciated, could call royal pupils to their noble demonstrations? Alas, I know not. I know only of a profession sinking fast its art into its trade, and in some and many instances descending even to the speculative tricks of the gambler, and to their inevitable consequences, loss of wealth, loss of mental health, and inevitable despair.

Facilis deccensus averni, and never so facile as when the great descend.

That some one, if not I, should speak thus earnestly against the centrifugal rending of medicine is the more necessary because of the risks of delay. It cannot be concealed that one generation imbued with a particular conceit, if it retain it to the last, passes it to the next generation with increasing force, and that many, indeed all, of the deepest sectional delusions have their root in the idols of descended usage and form. A false belief thus seated evolves a practice of overwhelming power because, despite the most cogent reasons against it, suggested and proved by better knowledge, men are afraid to question it or leave it. Thus our own forefathers, by their too rigid adherence to wholesale blood-letting against reason, let even the meanest of their enemies teach them; as in like manner our modern statesmen are being slowly taught, by the youngest of States, the natural truths, that life cannot be saved by taking it,—that familiarity with violent death must make such death less hideous, and that the majesty of the law, which should partake of the majesty of the Eternal, can never be usefully sent forth bottled up in the brandy-reeking pathology and offensive rags of a cowardly, concentrated, and paid murderer.

With some classes the retention of a prejudice, engrafted of old, and passing through many generations, may be of service, in that it may ensure to them the praise and confidence of a world able to judge of the merits of a case or sentiment. Of the priest, the barrister, or the politician, the world may have a standard of judgment, and that judgment may have soundness in it, resting upon a correct understanding of a necessity or a talent. But of us, out of our moral and social conditions, the world has no standard that is worth its possession or our appreciation. Our licences to heal are its only safeguards, and these are governed by our own laws and opinions. In our practice we hear ourselves offensively criticised to-day, and to morrow as offensively lauded; but by those of us who are serious in our work, the praise and the blame are measured alike, because we know that our self-conscious mistakes are as often falsely admired as our self-conscious triumphs are falsely misrepresented. Who of us that is observant does not constantly witness the conceit, that the last physician called in to give an opinion is the best in the eyes of the looker-on? yet who of us that is honest does not feel that the conceit is childish, and, by common understanding, treat it for precisely what it is worth and no more?

But for these very reasons, for the reason of the helplessness of the world in judging of us, and the security of our own isolated position, ought we to guard the more zealously the unity of our science, and endeavour to become, not many men treading diverse paths and aping, before universal ignorance, superiorities which we cannot substantiate before ourselves, but as one man treading the same path, and striving for such union of power as shall make all who will it the best in all places and in all time. Above every thing let us not permit a future Le Clerc, Spriengal, or Friend, to say of us that in an age crowded with every advantage we forgot Hippocrates, and, bitten by the practices of inferior minds, turned our Temple into a market-place, each man with his own stall, and no stall with anything upon it that the historian cares to discover.

By what steps shall we then progress towards that unity to which it is essential to aspire, towards that high standard of producing and fruitful research, which shall put our work amongst the philosophies, and give us command and power. Proceeding to answer this question from its negative side, let me at once express an entire disbelief of the utility of spending time in putting down what is called quackery. Of course I do not mean that men who cultivate scientific medicine, should associate with men of quackish mind and instinct, or that it is bad for us to do as we usually do, scent out with uncommon sharpness, all such representatives of the rat and weasel type, and send them to perpetual Coventry with such marks on them as shall fix their positions, and characters too firmly to admit of mistake. But I mean that it is in vain to enter into waste of controversy with systematized quackery, because if we can make our science pure there could be no quackery in existence, while there will be quackery so long as the science is impure. We see that in astronomy there are no quacks, that in mathematical science there are no quacks, that amongst skilled artisans there are no quacks: and, turning to our own world, we know that even with us some parts of our field are entirely free of quacks. Who can find me a quack anatomist? mark! as surgery has become more precise, how in surgery the quack has slunk aside. Where now is the quack woman who would venture, as in the time of good old Daniel Turner, to plunge a needle into the eye-ball to extract opaque bodies from its chambers. These things have passed away, and so shall all quackeries pass as the certain takes the place of the doubtful or obscure. Respecting blatant quackery out of our sphere, I think we have every reason to be satisfied with its rapid decline; it has virtually ceased as a distinct and recognized trade, and in that character needs no more punishment. In our ranks, though it hides still—and I veritably believe, exists often of necessity, in the natural constitution of those who exhibit it, in men of small brain and cold blood, it is growing more harmless day by day under the influence of exposure, and its own idiotic feebleness.

Leaving then the negative side of the question, let us consider in what way our lines of research shall so be carried out, that our united forces shall be brought into full and combined action.

And first it appears to me that such weakness as we show lies amongst those of us who represent the actual living fact of physic: lies in this, that we are walking separated from each other, on lines parallel so that we do not meet, and so broadly apart that we do not even hail each other. We are as rays of light piercing transparency at the same angle, and never combining to form one clear focus, or if ever in part combining, to make a picture which is capable of no clear definition. If this be so, then the first step in our research must come from the active members of the profession, and must show itself by a resolution to arrest the present centrifugal aberration, to concentrate the forces of the science, to consolidate its basis.

In this sense it is of first importance to forbid at once and for good the centrifugal mania of instituting a separate society for every artificially divided branch of medicine, and to prevent the molecular disintegration of the grand old Republic which our fathers left us to foster, to strengthen, to hold, to beautify, but never to dissever. It is not too late to amend this error. Let there be as many societies as there are tens to form them if they all meet in the unity of physic; but the crash into sects can no one stop that? Is there in medicine and in this country no central body that will attract the fragments and save anarchy? What should we say if the astronomers divided themselves into the telescopical society, the air-pump society, the solar society, the lunar society, the planetary society, the saturnalian ring society, the asteroid society, the fixed star society, the comet and meteor society, the star spectrum analysis society, the worlds-on-fire society; to say nothing of the Keplerian, the Newtonian, the Halleyan; or the Zodiacal, ecliptic, or orbital societies? What should we say! Why that the astronomers were on their last wings—a mad crew, splitting up the blessed universe and the universal harmonies for gross imaginings, with as little compunction as a printer who distributes the type of a great book, and making themselves as loose as sand. I trust that whatever may be the power of this St. Andrews Association, it will keep to the unities or dissolve itself.

The object of all societies, in short, should be simple union of men together for a common purpose, with independence of individual action and entire freedom from all that shall tend to specialize either men or things. When a man enters an arena knowing that he will be allowed only to stand on one leg, he may by the rehearsing he has been guilty of, and by the advantage of the trained and prepared tastes of the audience, make a very creditable display. But what belongs to the display or what comes of it? When a man, bound to a special society, is teamed with another man for a sub-special purpose, he may pull very hard and do all the work, or he may not pull at all; but in neither case will he be quite satisfied, and in neither case will the work have the breadth and touch and colour of one skilful hand. Indeed, so formed are we by nature to differ, that the evolution of a single harmonious thought by two minds is a physical accident. The early Mythology, which gave to many gods the construction of the universe, was not more intrinsically weaker, nor falser, nor more mischievious to the conception of order. Let us then, again, as an association, respect in the fullest degree the independency of members. Let every man be a law unto himself. Let us seize as a truth from this our first day's birth, that all true progress is the result of individual labour, that genius has no double, and bears no double yoking; but that, fastened in their independency by the social ties of friendship, and sharpened by the criticism of other minds, the units of the society may each become so strong that their very individuality shall be their safest bond, and their individual strength the best surety of their united endurance.

UNITY OF PRACTICE.

To secure a sound method of research in medicine unity of practice and of observation, over the whole field of disease, are other essentials. I am quite free to admit that men have certain differences of capacity and feeling which education cannot altogether equalize, and I also see that in our great work there are practically a few grand parts which though not altogether, nor indeed at all disconnected, do nevertheless allow scope for certain differences of capacity and power. The governance of the hand and the eye for precise co-operation is natural in some men, and when this gift is combined with a firm heart, the man, owning all, stands forward pre-eminently qualified for the handicraft of physic. He is by nature a surgeon, and though he may likewise be a good physician, he will soon be detected as having the mechanical art at his finger ends. There are other men who are naturally endowed with perceptive knowledge of habits, tastes, and failings, mental or physical. These men are by nature physicians, and though they may likewise become good surgeons, they are

soon read off and placed by their compeers in their true positions.

Corresponding with these natural qualities of professors of our art, there are tracks in the art itself for their peculiar skill, and the general dividing of medicine into the medical and the surgical, is probably a sound practice, resting on necessity and on natural law. A plea also may be put in with fairness, founded exclusively however on artificial necessity peculiar to the age and civilization, for the separation of the physicians into those who treat physical and those who treat mental disease. But beyond these general divisions there can be no rending for anything but evil. Separate an organ from an organism and the organ no longer belongs to the organism. Make diseases isolations and you make them entities, to be treated as such. What child's play! If the theory, hapless, were true, what hope were there for advance in knowledge of disease or its management? Entities, how many are you? Physicians, on what is your particular knowledge of your particular entity based? Can you separate one of your entities or find an exclusive seat for it in the vile body? Well, if you can, then has your labour not yet commenced, for entities never die, and although you may live long to study yours and to make the description of it sensational, and to talk to it and get many fees for the talking, which fees shall be after all the best of the intercourse, yet shall the entity remain, unexorcised and lively as ever, when you are very quiet indeed.

The entity doctrine in physic having its origin in the dreams of Van Helmont and Stahl, dreams grossly perverted by their followers, and carried down to this day in reality, although disguised in some of the stolen clothes of science, is the curse of our profession. When the public come to form so low an estimate of an individual who should rank with the philosopher, as to believe that his knowledge is confined to one so-called disease, or to one organ, the beauty and the nobility of medicine, as a system, are for the moment gone, and the great philosophy which the ancient poets compared to the sun, and consigned symbolically to Apollo, is eclipsed. And when he who should be the philosopher is willing to bow to a mean estimate and to say, "Your servant, sir," to the stupid who comes to him because he is the fountain head of knowledge on the kidney, or the liver, or the toe-nail, or the muscles and sinews as distinguished from the bones and the joints, then is the eclipse dense of dense. The darkness may be felt.

Nothing but a sense of an imperative duty could warrant these sayings. Nothing except the deepest love for medicine could embolden me to say them. But I am tired of seeing physic sneered at as the least exact of all human things; I am wearied with sound of the earth bells tolling our frailties; and I am saddened to recognise that the profession, blind to its interests, allows an universal specialism to nourish and force an almost universal scepticism.

THE UNITY OF EDUCATION.

To sustain the principle of unity of research in medicine, a reform of the most sweeping character is required in the matter of medical education. The young mind brought for the first time into connection with its older life, takes up at once the impressions by which it shall afterwards be mostly guided and ruled. What then sees the student, as he enters medicine? What does he hear? What does he grasp? He sees a mirage, he hears a Babel, he grasps water.

What of the hundred things set before him to study shall he study first; who of all those debaters, for now there are no teachers, shall he believe; to what tenet, to what current shall he trust his future? Poor student; thou hast many masters, but no master; and now thy masters, abusing with loud sounds, the scissor workers of physic out of the privileged house which thou walkest in, are so far imitating them as to snip up for thee sundry similar patterns even in that guarded house, which thou must also learn. I do not wish to over-praise the old days of apprenticeship, and seven years surgery: but beshrew me student skipping about in that big asylum, now in this lecture-room half asleep, and anon in that lecture-room very much too wide awake, this hour pouring out thy broken ideas on that operation, criticising Peter thy master, at the expense of Paul thy master; and finishing up the day with a discussion at a society's meeting, on a subject the alphabet of which is not in thy possession. I say, student, perchance thou wert better in the seven years' surgery after all, and vastly better if there thou hast over thee one good master, who will give thee all he has except experience, and years, and ripeness of thought, and thine own soul.

Unity in medical teaching is a call urgent and unmistakable. As many schools as you may find teachers for them, as much rivalry as you please, but unity in the school, unity of thought, unity of word, unity of expectation and object, these are the urgent demands of the day and the hour.

Neither are the demands on the side and in the interests of the taught alone, they extend to the teacher. The art, the skill, the endurance, the fame of the teacher are all in rapid decline. On the one hand, so keen is the competition for practice, so much richer are its rewards; on the other hand, so widely distributed are the responsibilities of the teacher and so small is the return for skilled and profound teaching that there is no practical competition whatever for professorial fame. Before he is himself schooled in schooling, your modern lecturer is out of the chair and into the chariot: and thus we are accustomed to hear of the various schools that the school is of no moment, that one school is as good as another, and that everything in the way of success rests with the student. The argument is irresistible, but is it good that it should be irresistible? Is there nothing for the student to learn in the patience, the impassion, the solidity, the labour, the zeal, the devotion of a great teacher. Was Fabricius nothing to Harvey, was Beddoes nothing to Davy, was William Hunter nothing to Brother John? Let the eloquence, the genius, the force of the great teachers of old pass into the grave, and the dead have buried their dead, and the living have no more life.

It is worthy of our consideration as an associated body, whether we cannot ultimately through our University resuscitate the greatness of medical learning; resuscitate its poetry, its philosophy, and to the ingenuous mind, its practical utility, St. Andrews hath not always slept, but hath sometimes done the waking work of centuries in a few short years. If she should wake again, should she not wake as one refreshed by long slumber, charged with new force, determined to prove her vitality, and to transcend her ancient fame?

THE DIRECTION OF RESEARCH.

Presuming the centrifugal system of modern medicine be abandoned, or so modified as to lead us to some common understanding, what are the directions towards the unity of which I have spoken? The first step is to bring all minds to bear on the simple physical relations of animal force to animal matter. In animal bodies I find two different forms of matter, one I call fatty matter, the other I call albuminous. I take the fat which is a solid, I apply to it force, by the heat of a lamp or fire, and from the solid it becomes of fluid form. I take the albumen, which is before me liquid in water, I apply it to the same force and lo! the liquid becomes solid. I take a dead animal and expose it directly after death to a temperature from five to six degrees above freezing point, and its fat solidifies, but its muscles remain flaccid. I take another animal recently dead and place it on a sand bath at 110°, and its fatty matter remains fluid, but its muscles contract and fix in the firmest rigidity. I take blood newly drawn and fluid, I place it below 44°, and it holds a fluid: I raise the temperature so little as ten degrees and it yields me a firm coagulum. I take gelatine solid and like to dried coagulated fibrine, and treat it with heated water and it dissolves into what resembles water in tenuity to solidify as it cools. What mean these opposite effects or the same force? How does the force bind one thing and loosen the other. Why in the organs of active locomotion have we only matter that is put into contraction by force, while in the nerve tissue we have compound matter, one part of which is solidified the other fluidified by force. How is force laid up in nervous matter? Why in one case is it fatally poured out, and in another case fatally suppressed. These and many more questions of the same caste lie at the root of the explanation of living phenomena healthy and diseased; nor can a step be made in scientific healing until they are answered. With the relations of force to matter unknown, the morbid dissecter like the grave-stone cutter, cuts only to record; the pathologist is an abstraction, and the therapeutist a sceptical believer, who fears to trust, dares not mistrust, and relies on an experience which varies like the deceitful sea.

The simple relations of force to matter understood, all that requires to be known by the physician, in all his departments, would proceed as light proceeds from the sun. He would see them proceed as natural and sequential, and what now appears to him out of the order of nature and as disease, so named in abhorrence or disgust, would be found to be in the order and to

be preventable, remediable or removable, according to the necessities of order. Then would he see and know the limitations of his power, nor waste his time in what, for aught he knows now, may be vain efforts to resist the inevitable. Then should he know the full extent of his influence and gather, I predict, such marvels of knowledge that the crude beliefs of the wondering should be shaken to their centre.

But towards this end the cry is again for the unity of research. As none but the "God can love from whole to parts," as no service, nor labour, nor work of man hath ever descended from the whole to the parts, but hath always proceeded from the individual to the whole, when success hath attended it; so in medicine we must move from the primary fact of life to the whole manifestation.

And here will be the point of the conversion of medicine from dissolute and prodigal weakness into absolute and united strength, that her wandering children, ceasing in sheer and useless weariness from their isolated tasks, and called by the trumpet voice of some great leader, shall lend themselves manfully to the discovery of the primary, and from that discovery march onwards in the consciousness that the accepted is the proved, and that what is not proved is not known.

In the midst of much confusion, and, as I have shown, of fearful centrifugal rending, there stand forth two facts of promise.

I notice, first, that there are one or two stranger voices whose words are reaching us. Amongst these the voice of Thomas Graham, Master of Her Majesty's Mint, is specially attracting us. His language is strange to many, but there are single notes, and I had almost said harmonies, which come with power upon the mind. He will be listened to more.

I notice, secondly, that there is almost a thankful willingness to resign Abra-ca-da-bra! We had for a long time a book of common forms; a Latin book, in Rose, Shamrock, and Thistle editions, full of tales

"Of herbs, plants, flowers, and their true qualities,"

writ in Latin. At last the strongest man in the practical reform of our craft in our time—the Cromwell of physic—condemned the book and its mysteries, and now it floats, in simple English dress, in time to make its bow and retire altogether. Before I name the book, I must, in parenthesis, say who this strong man was. It was the man who, opening the locked doors of hospitals, nailed them open, and who left behind him a work which—though its blasts and its hurricanes are subdued, though its noble Saxon tongue, ringing like the hammer of Thor on an anvil of silver, hath caught the Norman lisp, and though the hand of the poet, born, not made, is no more—is, notwithstanding, under the momentum of his genius, still one of the most powerful class-journals in the world. The man, I mean, was, of course, the late Mr. Wakley.

As for the book which he condemned, and which flourishes in this day as the "British Pharmacopœia," though the reform in it is not stout winning, it is a good giving-up of dead weight, and, amidst an ocean of discouragement, is a faint but hopeful sign of advancement. It is beyond what it seems. It is leading us to ask whether simplification cannot be carried out further, and whether investigation as to remedies cannot be rendered more precise; it affords scope for the introduction of principles in therapeutics, and binding us by a more correct nomenclature with advanced chemistry, it connects us closely with one section at least of the more accurate sciences.

Hitherto I have spoken of research in medicine as connected with our present interests and aspirations; but the grand, the overpowering object of such research rests, after all, in the hopes of the future. Who fails to realize this truth hath no part nor lot in victory. If the unity of belief, that we live for the future, exist not amongst us, but be left to the prescience of individual minds, then is unity of labour still far, far removed, and the mourning of the world wailingly prolonged. Small we may be, but if the world wait for our combined action, then ought we to be great. And who dares doubt that the world doth wait even for us.

The glories of that happier time, for which all creation yearns, what are they but the glories of life relieved from pain, from want, from care? Are not these reliefs our duties? Is it not our office to be the first of men to pluck the curse of pain from the whole earth? Is it not our office to economize the gifts of nature, and lend her wealth to health? Is it not our office to soothe the troubled mind and bring the disturbed brain to equilibrium of power? If these be not our offices, who are the blessed that claim them? If they be—then the sweetest singer of Israel, telling of the time when "There shall be no more thence an infant of days, nor an old man that hath not filled his days;" and the Roman poet, singing the

"*Ultima Cumæi venit jam carminis ætas*
Magnus ab integro sæclorum nascitur ordo;"

and the mighty apostle, thundering through the ages, "The last enemy that shall be destroyed is death." Then these are our prophets proclaiming to us our mission, and assuring us that, if the mission be faithful and their prophetic visions true, we, in life or in death, shall be as kings in the kingdom of our Father.

ON POSITION AS A CAUSE CAPABLE OF ALTERING MORBID SOUNDS IN THE HEART

By HENRY KENNEDY, A.B., M.B., M.R.I.A.,

ONE OF THE PHYSICIANS OF THE CORK-STREET HOSPITAL, AND ATTACHED TO SIR P. DUN'S.

(Read before the Association of the College of Physicians, Nov. 20, 1867.)

In the following paper I would ask the attention of the Association to some of the causes which alter or modify a bruit de souffle existing in the heart. To some of the causes I say, because it would not be possible to enter here upon all. Neither, in bringing forward this subject, do I profess to anything new. All I hope to accomplish is to raise into a general principle one of the causes capable of modifying a bruit, a cause which, as far as I can make out, has only been glanced at, or noticed in the most cursory way by writers on the subject; and I have looked into all the leading writers of the day, for information. The works of Fuller, Blakiston, Markham, Bellingham, Hope, Latham, and Walshe, have all been consulted. The point of which I would speak is the difference which exists in a souffle, according as the patient is in the prone or erect position. The only notice I can find, as bearing at all on this question, is the following: in Bellingham's work it is observed that the frottement sound of pericarditis is to be looked for in the erect as well as the prone position. Again, in what I may call the exhaustive work of Walshe, the point is alluded to in a paragraph of some eleven lines. I would also direct attention to a valuable paper published many years since by Sir D. Corrigan, "On the diagnosis of Abdominal Aneurism," in which alteration of position led to a correct diagnosis of the disease. Lastly, in the able work of Dr. Stokes, and in the chapter devoted to the existence of a bruit occurring in the progress of fever, different cases are given in which it is stated that the soufflet heard in the recumbent position was absent in the erect. This is the point of which I would speak, and I would also add that it is mainly, though not entirely, to what may be called the blowing, or softer forms of soufflet that my remarks will apply.

For some years past my attention has been directed to change of posture, as a cause capable of altering any morbid sounds which existed in cases of heart disease. The result of all my observations is, that in the great majority of cases the morbid sounds are weaker in the erect position, and to such an extent does this go, that it is by no means uncommon, as, indeed, has been already observed by Dr. Stokes, for a morbid sound to disappear in the erect, which was quite audible in the prone position. Short of this, however, I cannot doubt that the sounds, even when audible, are weaker when the patient either sits or stands up. Now, this I take to be a very important principle; and the more so, as from anything to be gleaned from Walshe's work, he seems to hold a contrary opinion, and I speak specially of this latter writer, because his work is the most elaborate and recent one I have met. His allusions to the point that I would bring before the Association are, however, of such a character that nothing definite can be arrived at from them, and it is quite clear that he has come to no general principle on the subject. There will be occasion to allude to this writer again.

Before going farther, however, it may not be out of place to give the shortest sketch of a few cases, out of a much greater number, which will illustrate the views I wish to bring forward.

Case 1.—Henry, a man of 60 years of age, having his hands very much deformed from rheumatic gout, has a weak but perfectly distinct soufflet occupying the first sound of the heart, and heard close to aortic orifice. It is quite distinct when he is lying; but is not heard on making him stand up. Bounding of the arteries was very marked in this man.

Case 2.—Jordan, a woman of 35, has a soufflet, giving the

ear the idea of a very tense opening, and the sound being of the metallic character. It is heard loudest under the mamma; occupies the first sound, and though not at all lost when she stands up it is yet clearly louder when she lies. Her lips are livid, and it is evident there is dyspnœa. In fact I could not doubt there was narrowing of the left auriculo-ventricular opening.

Case 3.—Grierson, aged 20, got a first attack of acute rheumatism, in the course of which a very well-marked soufflet was heard occupying the first sound of the heart. This was only heard, however, as he lay in bed; for when up it became inaudible. As long as this patient was under notice the same state of things was observed.

Case 4.—Mr. K., a pay-patient, has a soft soufflet with the first sound of the heart. In this instance no appreciable alteration was caused by changing his position. This patient had very visible bounding of all the large arteries.

Case 5.—Finn, a girl of 23, has a weak soufflet occupying the first sound of the heart. This is so when she stands up, but on lying down it becomes not only more distinct, but in a very marked degree, prolonged. In truth it was hard to believe that they were the same sounds. Observation made several times.

Case 6.—Mr. H., a pay-patient, has been a sufferer from sub-acute rheumatism, and has now a weak soufflet with the first sound of the heart. It is more than probable, from all the symptoms, that it is the result of former illness. The soufflet is quite distinct as he lies; but is not audible when he stands up. The observation was made on different occasions.

Case 7.—The Rev. Mr. S. I attended for many years. From the year 1848 he became a crippled man, from asthma, attended always with chronic bronchitis. As time went on, signs of a dilated and weakened heart showed themselves; and to these was shortly added a soufflet, weak at first, and heard only as he lay, but finally quite distinct. It was heard over the aortic valves, and occupied the first sound of the heart. In this instance the difference of the sound between the prone and upright posture was very marked; for, though the soufflet did not disappear in any position, it was yet much more pronounced as he lay.

Case 8.—A girl of 18 years of age had a soufflet of somewhat a rough character. It occupied the first sound of the heart, and was heard over the base of the organ. In this instance no appreciable difference arose from altering the position of the patient. It may be noticed, even though it be beside my present object, that I was unable to arrive at any definite conclusion as to the cause of the sound.

Case 9.—Doran, a boy of 15, has a distinct soufflet over the seat of the aortic valves. It occupies the first sound. Though quite distinct as he lies, it is doubtful if it exist at all when he is up. At any rate, the difference is very striking. This observation was confirmed by my friend, Dr. Grimshaw.

Case 10.—Fegan, a man aged 21, affected with subacute rheumatism, presents a weak soufflet when he lies. Like the other cases it is with the first sound, and it is very doubtful whether it exists at all when he stands up; nor does brisk walking make it a bit plainer. Several observations were made on this case, and all with the same result.

Case 11.—Fitzpatrick, a boy of 11 years of age admitted into the Cork-street Hospital with typhoid fever. He presented with this the very unusual complication of acute pericarditis: there being a very distinct frottement, attended with severe pain, referred to the region of the heart. The rubbing sound changed, in the course of some days, into a single soufflet, which, a little later, could only be heard when he was lying, and finally disappeared entirely.

Case 12.—Keegan, a girl of 23, of a very large make, presented a soufflet of a rough character. It occupied the first sound of the heart, and the greatest intensity of the sound was heard directly over the aortic valves, and possibly a shade more to the right than usual. A portion of the bell of the stethoscope was on the sternum. This sound was by many degrees stronger and more distinct as the girl lay, and when she stood up the sound was still audible. This observation was made on several occasions.

It would be easy to go on adding to these cases; but they appear to me quite sufficient to illustrate the point to which I wish to call your attention. It will have been observed that, in all the cases, the soufflet was single, and occupied the first sound of the heart; and with one exception was heard loudest over the base of the organ. There can be no doubt either that in some of the cases the morbid sound was functional. But this does not alter, in any way, the position I seek to establish; for the principle applies equally to morbid sounds, whether organic or functional. The weaker or softer the sound is, however, the more striking is the difference caused by altering the position of the patient; that is, if the soufflet be hard to catch when he lies, it is almost certain to disappear on his rising. It will have been observed that the cases given this evening exceptional to this, were very few. Neither were they selected in any way; nor are the remarks made, confined to cases where but a single soufflet existed. They apply, but not in so marked a degree, to cases where the morbid sounds are double. Such cases, however, are much rarer than where there is but a single sound; and so I would speak with more reserve of this part of my subject. The following is a case in point:—

Case 13.—Healy, a blacksmith, aged 50, was admitted to hospital, labouring under an attack more like bad influenza than regular fever. He was a hard drinker, and was a sufferer from rheumatic pains. I was at once struck with the character of his pulse, and on further investigation, found he had confirmed disease of the aortic valves, the form of the disease so well described by Sir Dominck Corrigan. No symptom was absent, and the greatest intensity of the double morbid sound was heard close to the nipple. Both sounds were all but rough in their character. They could be traced up the aorta, but got weaker as we ascended. In this case, a marked contrast existed in the intensity of the sounds, according as he lay or stood up. They were much the loudest in the recumbent position. The next case presented a somewhat new phase of the subject.

Case 14.—Conolly, a young man of 18 years of age, was admitted to Hospital, labouring under common fever. He had fallen into the canal, and remained in his wet clothes. Two years previously, he had had acute rheumatism. My attention was caught by very strong pulsation of the carotid arteries, and a bounding pulse at the wrist. On applying the stethoscope over the base of the heart, a distinct double soufflet was heard; of which the second sound was the loudest. The observation was made as he lay in bed, and several times. When able to be up, the double sound was still quite audible; but whilst the second sound preserved all its clearness, the first was very materially weaker. There was, no doubt, in this case, organic disease; nor could the man run at all like another of his years. This particular part of the subject, that is, where a double soufflet exists, opens out a wide field for investigation. In some other cases I have seen, and where there could be no doubt of the existence of organic disease, I could not detect any appreciable difference in either sound, by altering the position of the patient. But I do not consider it necessary to give these cases here.

It scarcely comes within the scope of the present paper to say anything of the site or character of the morbid sounds which occurred in the cases already detailed. I may, however, observe that in by far the majority of instances the sounds existed over the base of the heart, and, as I believe, at the mouth of the aorta. That a murmur may, now and then, be formed in the orifice of the pulmonary artery is more than probable, and I have met cases where I could come to no other conclusion; the intensity of the murmur, together with its site, being so much to the left of the more common position. At the apex of the heart, too, and its neighbourhood, single morbid murmurs, occupying the first sound, are to be heard. Within my own observation, however, they are not at all so frequent as at the base of the organ. Whether they are ever functional in this situation would seem not yet to be absolutely determined. On this point my friend, Dr. Hayden, read a valuable paper at the late meeting of the British Medical Association in this city. He adduced four cases, in which it seems more than probable that the sounds heard were functional. I, myself, believe in the possibility of this, and I consider that one of the cases given this evening may have been of that nature. But the point, as I have said, is beside the immediate object of these remarks: which is to prove that position alters, in the great majority of cases, the intensity of morbid sounds heard in the heart, and this whether the sounds exist at the apex or base.

And, here, some one may ask, can you give any valid reason why position should thus alter the intensity of the sounds. Two surmises, as they may be called, can be given, but are only to be taken for what they are worth. It seems to me that in the erect posture, the blood may possibly rush out of the aortic orifice in a more direct line than when the person is recumbent The heart, by its weight, is known to fall, and beat a shade lower in the upright position; and hence it is not impossibleto conceive that when the organ goes up a shade,

as occurs on lying down, some slight irregularity may then exist, which is capable of generating sound; and we all know, and if I recollect rightly, from the experiments of Sir. D. Corrigan, what a very slight cause is capable of generating a murmur.

But there is another element to be taken into consideration, as bearing on the point. I mean the difference in the number of beats of the heart, according as the individual is in the upright or horizontal posture. The late Dr. Graves, as all know, wrote on this point, and the fact is established. It is, however, the deductions from it I wish here to notice. All must have recognized the difference in the character of the sounds—I am speaking now of the healthy heart—according as the beats are slow or very rapid. In the latter the sounds are quick, short, and frequently very like those of the fœtal heart; and, further, if a soufflet exist when the heart beats, say at 80, it is best when the same heart beats 140. In fact, there does not seem time for the sound to be formed, and that this is so, is proved by the fact that if the organ is allowed, or does regain, its natural beat, the morbid sound returns, and becomes stronger, apparently in proportion with its rate of falling. I have satisfied myself on this point again and again, and it has been noticed by Walshe, and, I presume, others. Now, this very principle, of which, it will be observed, no doubt exists, goes on, I believe, when the beats of the heart are not in any way in an extreme. Thus, if the organ beat 70 in the recumbent position, and 85 in the erect, and that a soft soufflet also exists, there will be, as far as my observation has gone, an appreciable difference in the intensity of the two; the recumbent posture giving the loudest sound. Yet, here the difference in the number of beats is very small. If, too, the number be reduced, by any cause, below the natural standard, the morbid sound becomes still more intense, and, I think I may add, prolonged. The following case, though, from other circumstances, it cannot be considered a complete observation, is worth giving here, as bearing on this subject—

Case 15.—A young man of 21 years of age was admitted to hospital in a state of profound coma. He laboured under the affection known as acute jaundice. His pulse beat only 54, and was perfectly regular. On applying the stethoscope over the base of the heart, and partially over the sternum, a very well-marked soufflet, occupying the first sound, was heard. It was of a clear, blowing character, and remarkable for its great length. The day before his death, which occurred on the fourth day from his admission, the pulse rose to 112, and the soufflet became much less marked, and of shorter duration. On making a minute examination of the heart after death, I was unable to detect the slightest deviation from health, the serum alone being tinged yellow. The murmur, there could be no doubt, was functional. This case has appeared to me worth recording; for it is seldom the opportunity offers, which allows us to connect a soufflet of this kind, with the actual state of the heart. As bearing on the point more particularly now under discussion, the difference in the character of the soufflet, according as the pulse was 54 or 112, is well worthy of note. The case is, however, not in every way complete, as already stated; for the state of the patient prevented any observation being made in the erect position.

Such are the conjectures or possible reasons, then, which appear to me to go some way in support of the view that the weaker murmurs are heard more intensely in the recumbent posture. Supposing, however, these reasons were not good, it would not follow that my views were incorrect, for I believe nothing has been stated but what are facts, explain them how we will.

If it be then granted that this is so, I would now go on to make some deductions from what has been advanced. And here it is necessary to notice Walshe's work, for in it some points are stated from which I must, with all respect for so able a writer, object. It is quite clear that he seems to think no principle exists on the matter. He states that cases occur where the murmur is loudest in the recumbent, and may not even be heard at all in the erect position. On this I entirely agree with him, for it agrees with what I myself have observed. But he says further, that some murmurs are only heard in the erect position—here I must join issue with him. I have sought again and again for anything of this kind, but in vain; and further still, I have met no unequivocal instance where the murmur was louder in the erect than the recumbent posture. The most I have met, and even these were very exceptional, were cases where changing the position of the patient did not alter the intensity of the murmur. The fact is, if the principle I advance be correct, anything directly opposed to it must be rare in the extreme; and, farther, if it be true, some important conclusions flow directly from it. Thus, when a murmur is forming, it will be first detected in the recumbent posture, and no examination can or ought to be considered complete, without adopting this device. Again, when the murmur is only heard in the prone posture, or is much weaker in the erect than the lying one, the conclusion may be safely arrived at, that the cause of the murmur is as yet but slight, and our prognosis may be made accordingly. I need not say that it is not within the scope of this paper to enter into the diagnosis between organic and functional murmurs. I may observe, however, that the remarks made apply equally to both.

I have reserved for the last place, a point which appears to me of much importance, and having the closest connection with the matter in hand. I allude to the diagnosis of fatty heart, about which, as all know, so much obscurity may even yet be said to exist. In another place I have shown the marked infrequency of valvular disease, in connection, I mean, with fatty heart, and so no morbid sound exists to lead to the detection of this lesion; and farther, that when aortic valvular disease does exist, it is very constantly of a peculiar character, the valves being then thickened and leathery, as distinguished from ossific deposit. Now, this state of the valves gives rise to a soft murmur, occupying the first sound of the heart, and has been set down by Dr. Stokes, in conjunction, of course, with other symptoms, as diagnostic of fatty heart. I believe the observation to be absolutely correct. But the point I would notice here is, that this murmur may be detected in the recumbent before it can be heard in the erect posture; and in a lesion like fatty heart, where so much obscurity yet exists, the smallest step in advance I take to be of the greatest moment. In conclusion, I would just say that no one is more aware than myself of the imperfect character of these remarks. The subject in truth, is one of great extent, and opens out a wide field for investigation. It is, possible, however, that what has been advanced this evening, may lead others to follow out this subject, and, by so doing, arrive at results of much practical value.

Note.—Since this paper was read my friend, Dr. Fleming, showed me a case which bore out the point that it is my object to establish. The soufflet here was caused by loss of blood.

Original Communications.

CASE OF HÆMORRHAGE IN THE NINTH MONTH OF PREGNANCY: PLACENTAL PRESENTATION: TURNING.

By E. W. ADRIEN, M.R.C.S., L.K.Q.C.P.I.

On the 4th of September last I was sent for in all haste to visit Mrs. B., a farm labourer's wife, aged about 28, a woman of rather delicate constitution, although of active habits.

The history of the case is briefly this:—About two hours before I saw her, she was engaged in breaking some pieces of firewood across her knee, when the hæmorrhage suddenly came on, which frightened her so much that she was obliged to be lifted into bed by a woman who happened to be near her at the time, and who, as soon as possible, procured a messenger, and sent for me.

When I arrived, I found the bed full of large clots of blood, and the bleeding still continuing; on examination I could not detect the nature of the presentation, as the os uteri was not sufficiently dilated to admit more than the point of one finger; pulse 120, and very weak; extremities cold, and covered with a cold, clammy sweat.

I immediately made a plug of some lint, with which I had been provided, and after wetting it in cold water, I introduced it into the vagina, ordered linen clothes, wet with cold vinegar and water, to be kept across the abdomen, her head to be kept rather low, with her pelvis well raised by means of pillows; as she complained greatly of the cold of her feet, I ordered a jar of hot water to them, and after removing all the bed-clothes, with the exception of one sheet and a single blanket, I gave her a small quantity of wine and water, ordered her some cold whey, or cold chicken-broth, at intervals; satisfied my-

self that the plug was properly placed, and that the bleeding was not going on, I left, and returned in the evening, when I was rejoiced to find that the hæmorrhage had not returned. Pulse 95, and much stronger. I did not interfere with the plug, as there was no appearance of the bleeding having returned; extremities much warmer. I ordered her the acid infusion of roses, and to continue the cold application externally. In short, I treated the case exactly as a case of accidental hæmorrhage, of course not knowing the presentation.

At my visit on the morning of the 5th, I found her greatly better; pulse about 90, and much stronger; no return of the hæmorrhage; passed water twice during the night. I gently removed the plug, ordered her to continue the mixture, and her bowels being confined, I also ordered her olei ricini. ℥i. tinct. opii. gtt. xx. fiat haustus, and left.

6th.—I found her progressing most favourably. Pulse about the same as the day before, but somewhat stronger; in very good spirits; bowels moved twice during the night, and passed water twice also; complains of slight pains shooting across the loins. I desired her to go on exactly as she was doing, and remain very quiet in bed.

7th.—I did not see her, but had a messenger sent me, who told me she was going on as well as could be desired; sent her word to remain very quiet until I would see her on the following day. This was about nine o'clock in the morning, and at twelve o'clock that night, the same messenger came for me in great haste to go visit her, that the bleeding had returned, and that she was even worse than she had been when first I saw her.

I immediately started off, and on my arrival I found that the hæmorrhage had indeed returned again to a very great extent, and was still continuing, accompanied by very strong labour pains. I also remarked that the bleeding was much worse *during the pains*, which left no doubt on my mind as to the character of the presentation.

On examination, I found, just as I expected, that the placenta was attached immediately above the os uteri, and could be distinctly felt through the partially dilated os.

My first impression was to send for the assistance of my father, but it being a distance of seven miles, and seeing so little time to be lost, I decided in taking the whole responsibility upon myself, and treating the case as best I could. From the state of the os, I knew that it would be impossible to introduce my hand without forcibly dilating it; I therefore again resorted to the plug, for the purpose of stopping the hæmorrhage, until the os became sufficiently dilated, or dilatable, to admit of my introducing my hand, detaching the placenta, and turning the child.

After plugging, I administered a small quantity of burnt brandy, and as the pains were coming on very regularly, I did not give any ergot, but waited patiently for about half-an-hour; when I removed the plug, and found the os dilated to the size of a crown piece, and the bleeding still continuing, and much worse during every pain.

I now introduced my hand in the usual manner, and with a great deal of difficulty succeeded in getting it through the os, and detaching the placenta from one side; this was followed by a most frightful gush of hæmorrhage, which ceased so soon as my hand and arm were forced into the uterus.

I now waited for a few moments, and then ruptured the membranes with my nail, when I found my hand on the head of the child; and, taking advantage of the interval between the pains, I succeeded, in a very short time, in securing both feet, when the child turned with so much ease that I was really astonished, owing, of course, to the waters not having escaped before the operation. I then brought down the feet, and immediately administered tinct. ergota, gtt. xx, B.P., and conducted the remainder of the case as an ordinary footling presentation.

The placenta required to be taken away by the hand, and after another dose of the tincture of ergot, the uterus contracted.

The child only lived twenty-four hours, but the woman is at present quite recovered.

ON THE USE OF CARBOLIC ACID IN THE TREATMENT OF ABSCESSES.

By JAMES MARTIN, F.R.C.S.I., L.K.Q.C.P.I.,
PHYSICIAN AND SURGEON.

I HAVE lately found much benefit from the use of carbolic acid in the treatment of wounds and abscesses. One case in particular forces itself on my mind as exemplifying its value.

N. I., æt. 18, a stout-looking young man, but of scrofulous diathesis, presented himself to me last February with an abscess, situate to left of the junction of the first and second bones of the sternum. It was about the size of half a large orange, and had evidently formed under the aponeurosis of the pectoral.

I made an opening at a depending point with potassa c. calce, having, for that purpose, to make a very deep eschar. The abscess discharged freely, pus of a thin watery character.

I treated him locally with poultices, stimulant application, and tents, and generally with iron quinine and cod-liver oil. He improved greatly in appearance, but the abscess remained unhealthy. I could introduce the probe upwards and outwards fully 5 inches, and the integuments being sound and thick, I thought it rather a formidable operation to make such a wound as laying it open to heal from the bottom would involve.

Before doing so, I happily determined to try the effect of carbolic acid. So dipping a piece of cotton, on the end of a probe, in a solution of 5 grs. to 100 of water, I mopped out all the interior of the abscess. The improvment was rapid and decided, the character of the pus improved, and day by day the cavity contracted, until now it is at the point of being finally closed, the parts being well knit, and it being impossible to introduce the probe for the one-eighth of an inch.

Hospital Reports.

ST. GEORGE'S HOSPITAL.

ACCIDENTS ADMITTED IN 1866.

IN returning to a consideration of the important volume of reports of this hospital, to which we have already allotted considerable space, we can scarcely do better than take up the report of the Surgical Registrar, Mr. E. C. Ring, which is drawn up with great care, and extends over seventy pages. Many of these pages are occupied with tabular matter, containing a large amount of statistical information, and which must have drawn largely on Mr. Ring's patience and industry. The best compliment we can pay his work is to avail ourselves of it to furnish our readers with such of the facts he has collected as we think may be most interesting. He divides his report into two portions; the first includes the accidents admitted during the year; the second the general diseases (surgical). We shall confine our attention this week to the former, reserving the latter for another occasion.

Altogether, two thousand one hundred and fifty-three cases were admitted into the surgical wards; of which number forty-nine were transferred from the medical wards, having been, in the first instance, admitted into them for some medical disease. Thirty-one cases were, on the other hand, sent to the physicians from the surgical wards, principally for lung-disease, which in most instances existed before the admission of the patient into the hospital. One case of scarlatina occurred in a patient after the removal of a mammary tumour.

GENERAL INJURIES.

Twenty-six *burns* and thirty-four *scalds* were admitted, and seven in each class died. The greater number of cases occurred in children, either from their playing with fire, or upsetting hot water over themselves from kettles, teapots,

cups, &c. Epileptic fits were not an unfrequent cause in adults. One young woman was burnt to death through wearing crinoline, her clothes, distended by it, becoming ignited. Of the seven fatal burns, several died from collapse, one of delirium tremens, one of erysipelas, and one of tetanus; this last case occurred in a woman æt. 34, who, in a state of intoxication, accidentally set her clothes on fire. The injury was severe, the lower limbs and part of the abdomen being much burnt. She complained of stiffness of the neck and throat on the sixth day. The one-twelfth of a grain of extract of woorara was subcutaneously injected, but the spasms became very frequent and severe, and she died two days later.

INJURIES OF THE HEAD.

Of these there were one hundred and sixty-one cases. Fifty-six of these were simple *scalp wounds*, not exposing the bone; in many of these there were other injuries which necessitated their admission. Three were attacked with erysipelas. There were no deaths.

There were twenty-eight *scalp wounds* in which the bone was exposed. One died of pyæmia following diffuse inflammation.

The scalp was found separated from the cranium for a considerable extent, the diploe infiltrated with pus, which existed also between the bone and dura mater, and within the cavity of the arachnoïd; there were secondary deposits in the lungs.

Thirty-six cases of *concussion* were admitted, many of them complicated with other injuries: they all recovered.

There were six cases of *simple fracture* of the skull; and of these three were brought in dead, and the others died two or three days after their admission.

Seven cases of *compound fracture* were admitted; six died. In one the operation of trephining was performed, and in another some loose and depressed bone was removed: both died.

Sixteen cases of *fracture of the base* of the skull were admitted, seven of which died. In all these there was bleeding from one or both ears, and in many, paralysis of the seventh pair of nerves. One man, who had been knocked down by a soldier, had ptosis of both eyelids, fixed and dilated pupils, and bleeding from the right ear. He was discharged convalescent in three weeks; but returned in a month with vertigo, headache, and tinnitus aurium. After an occasional purge, with an unstimulating diet, blisters to the nape of the neck, and leeches to the temples, he left in a month quite well. Another, who had fallen from the top of an omnibus, and had bleeding from the left ear, returned in a week with similar symptoms, which a like treatment removed.

INJURIES OF THE FACE.

Under this head are entered sixty-two cases, none of which were fatal. Two were complicated with erysipelas, and eleven with injury to some other part of the body. Eleven cases of *fracture of the lower jaw* were admitted. A four-tailed bandage, and occasionally a gutta-percha splint, comprised the local treatment. There were four cases of *fracture of the bones of the face*. One of these was a fracture of the upper jaw in a man who was jammed between the buffers of two railway trucks in motion. Eleven cases of *contusion* and thirty-one of *wounds* constitute the greater proportion of the injuries to the face.

INJURIES OF THE BACK.

Thirty-nine cases are entered under this head, of which five were *fracture* of the spine, without exception fatal. In one case blood was found effused on the theca vertebralis from the fifth cervical to the fourth dorsal vertebra. The body of the sixth cervical vertebra was fractured perpendicularly, and a sharp splinter of bone projected backwards into the spinal cord, which in this situation was extensively bruised and softened. The veins of the dura matter and vessels of the brain were gorged with blood, and there was some extravasation into, and bruising of its substance. In another case, a very considerable effusion of firm gelatinous lymph was found external to the dura mater, and surrounding it from the sixth to the eighth dorsal vertebra, and at this spot the cord was much softened. There was a slight angular curvature opposite the sixth dorsal vertebra, which was due to its partial displacement backwards from the seventh. The anterior inferior border of the sixth was absorbed and rounded off, and the intervertebral substance was gone from between the bones, which were covered with a smooth glistening substance resembling synovial membrane; but the structure of this membrane could not be detected under the microscope.

Twenty-nine cases of *sprains* and *contusions* of the back occurred, with four of *wounds*. Of these, one was fatal.

INJURIES OF THE NECK.

These include three cases of suicidal *cut-throat*—two males and one female. One of the men, who was much collapsed from loss of blood, died on the day of his admission: the other two patients recovered. Two cases of *wound* of the neck—one in a man who had fallen from the roof of a house, and was spiked on the area-railings below. There was a punctured wound below the body of the lower jaw, and other injuries; he died in twenty-four hours. The other was a case of simple abrasion of the skin, in an engineer who had caught his neck in the strap of a propelling engine; he had been nearly strangled, but recovered in a couple of days. Three cases of *sprains* of the neck were admitted; they did well.

INJURIES OF THE CHEST.

There were nineteen cases of *fractured* ribs, two of which died of bronchitis; and thirty-two of simple *contusion* of the chest-wall, all of which recovered. One man spiked himself in climbing the Hyde-Park railings during the riots. In one case the right lung was supposed to be ruptured. A man was admitted having fallen seventy feet from a scaffold. He was much collapsed. There was lancinating pain during inspiration, extending from the epigastrium through to the back. There was dulness on percussion, with deficient breathing over the lower part of the right lung in front. He had cough and hæmoptysis. The hæmoptysis gradually ceased, and in a few days râles were heard over the injured lung, which were replaced by the natural vesicular murmur in about three weeks.

A builder, aged 59, was brought in dead, having fallen from a scaffold some twenty feet high.

At the post-mortem examination the pericardium was found to be thickened and full of clotted blood; and its inner surface was coated with rough lymph. The heart was greatly hypertrophied; the ascending aorta was dilated, and its coats were thickly infiltrated with atheromatous deposit. This deposit extended into the thoracic aorta, where it had split up, leaving plates of calcareous matter projecting into the vessel. Quite at the back part of the arch, just above the valves, the atheroma had given way, and a small rent extended through the posterior aspect of the vessel, through which the blood had been extravasated into the pericardium.

INJURIES OF THE ABDOMEN.

Ten *contusions* of the abdominal parieties. Several cases occurred in children who were run over in the street; others occurred to men who were kicked by horses. One man fell from a scaffold, another across a girder. One girl was admitted with a contusion from a fall down stairs. In several cases there was collapse; but the urine was found perfectly normal, and no case was fatal.

Four cases of *injury to the scrotum*, three bruises, one a lacerated wound in a man who had been run over by a cab. The wound was stitched together, and healed readily. In one case the penis was severely bruised by a kick. Two cases of *wounds of the labium;* one in a woman who fell across the back of a chair, and in the other a chamber gave way, and one of the fragments inflicted a deep wound in the right labium. Both did well.

Six cases of *wounds* of the abdomen ; two were stabs inflicted during street rows. In both the wounds were of a dangerous character, and a considerable amount of blood was lost ; both recovered. One man wounded himself by falling down whilst carrying a knife ; another was accidentally wounded with small-shot. There were thirty-nine shot marks ; but none of the wounds were deep, some being mere abrasions. The patient did well.

A case of *rupture of the liver* has been mentioned. The patient also had a compound fracture of the skull. He lived for three days.

Two cases of *ruptured kidney* were admitted. One that of a man who was jammed against a wall by the pole of a pleasure van. There was a bruise on the left side of the epigastrium. He was in a state of extreme collapse; on rallying he had vomiting. Blood was found in the urine for some days. Morphia was subcutaneously injected, and subsequently opium was given by the mouth. The most troublesome symptom was the vomiting; this, however, subsided, and he made a good recovery.

A case of *ruptured urethra* was admitted. A catheter was introduced into the bladder through an incision in the perinæum, and afterwards catheters were passed per urethram, and the wound healed.

One case of *fracture of the pelvis* was admitted. It occurred in a man who was riding down an incline on a truck, when he was struck by a piece of timber which projected across the line. One of his ribs was fractured, and there was emphysema. Over the crest of the left ilium was a severe bruise and a small wound. Crepitus could be detected. Evidently a portion of the iliac crest was chipped off. The patient recovered.

INJURIES OF THE UPPER EXTREMITY.

Of these there were one hundred and two cases admitted; fifteen of which were *contusions*, six being complicated with other injuries. There were twenty-eight cases of *wounds;* of which two were above the shoulder, seven of the arm, five of the forearm, and fifteen of the hand.

Twenty-four cases of *fracture* of the upper extremity were admitted ; ten being of the clavicle, one complicated with a scalp wound, two with bronchitis.

There were six of the humerus, and eight of the bones of the forearm. One of these, in a woman æt. 49, proved fatal ; the olecranon was fractured ; abscesses soon followed in the elbow-joint, necessitating amputation, and death occurred five days later from pyæmia.

Of *compound fractures* seventeen were admitted. Two were of the arm, and three of the forearm ; the remaining twelve cases were fractures of some part of the hand, and were admitted in order that the injured part might be removed. In two cases diffuse inflammation of the forearm followed, in two pyæmia and death, and in one tetanus, which proved fatal in twelve days.

There were five *dislocations* of the shoulder ; of these, four were into the axilla, three being recent injuries, in which reduction was easily effected ; the fourth being the case of a woman, æt. 51, who had fallen down stairs and dislocated her shoulder eleven weeks previously. After some difficulty the head of the bone was restored to its normal position by means of the heel in the axilla. The fifth was a case of subcoracoïd dislocation in a man who had fallen out of bed four months previously, the luxation never having been reduced. The deltoïd appeared flattened and somewhat wasted, and there was pain in the course of the circumflex nerve. After the employment of considerable force the dislocation was reduced; the patient, however, came up to the hospital some two months afterwards with the shoulder again displaced. The head of the bone was readily restored to the glenoïd cavity.

Eleven *sprains* of the upper extremity are entered—viz., six of the shoulder, one of the elbow, and four of the wrist. One case of *gunshot wound* of the hand completes the list of injuries to the upper extremity ; it occurred to a man in whose hand a gun exploded. The fingers of the left hand were severely lacerated, and the ring-finger required amputation.

INJURIES OF THE LOWER EXTREMITY.

These comprise a list of four hundred and seventy-five cases ; one hundred and four were *contusions*, five of which were complicated with other injuries. There were two deaths.

The popliteal artery was, in one instance, ruptured. The patient, a navvy, æt. 25, stated that five weeks previously he had been struck on the leg by a crowbar, causing him great pain. He continued his work ; but a swelling appeared in the leg in a few days, and rapidly increased. At the end of a fortnight he had to lay up, and the swelling remained stationary ; but on the night before his admission a little blood was discharged through an opening in the ham.

He was in a state of extreme prostration—being delirious, and covered with a cold sweat. The left leg was enormously swollen, the skin being quite cold, tense, and white : on the heel were some bullæ, filled with dark-coloured serum. The tibial arteries could not be felt to pulsate ; in the popliteal space was a small spot of ulceration, through which a little blood was oozing. The femoral artery was pulsating forcibly. Amputation of the thigh was immediately performed by the double-flap method. Although in an almost moribund condition, he rallied for some time ; but he was soon seized with profuse sweating, and died exhausted on the twentieth day. After amputation the popliteal artery, opposite the knee-joint, was found ruptured, though not completely torn across ; the vein was thickened, and it contained an adherent clot.

At the post-mortem examination, the stump was found full of pus ; pus was also found within the femoral vein, with ragged lymph adherent to its inner surface ; its walls were thickened, and adherent to the surrounding tissues. Pyæmic abscesses were found in the liver and left lung, with purulent effusion into the pleura.

There were forty-four *wounds* admitted—viz., thirteen of the thigh, twenty-two of the leg, and nine of the foot ; seven were complicated with other injuries, of which the most serious were a fractured forearm and a fractured thigh. Seven cases were attacked with hospital gangrene, and one died of pyæmia. A child, æt. 18 months, who was run over by a van and had an extensive lacerated wound of the thigh, died somewhat suddenly of bronchitis.

One hundred and fifty *fractures* of the bones of the lower extremity occurred. Of these, forty-seven were of the shaft of the femur, and three of the neck. The tibia alone was fractured in three instances, the fibula alone in fourteen, and the patella in six ; both bones of the leg were fractured in seventy cases, and the bones of the foot in two. One case of comminuted fracture of the lower end of the femur into the knee-joint proved fatal in four days, from delirium tremens. Blood was found extravasated between the fragments of bone ; but there was no effusion, or effort at repair.

One patient was admitted with a simple fracture of one leg and both thighs. He was found lying on the railway, and died of collapse a few hours after his admission.

One case of fractured cervix, in a woman aged 80, proved fatal from exhaustion and bed-sores. In no other cases of simple fracture of the bones of the lower extremity was there a fatal issue.

A man who had fallen some distance, and alighted on his feet, had both ankles severely sprained and a portion of the outer part of the left os calcis chipped off.

Twenty-five cases of *compound fracture* of the lower limbs were admitted. Of these, five were of the thigh : three died—two from collapse, and one from contusion of the brain. Twenty-one were of the leg, of which eight died : one of collapse, in which there were other injuries ; two of pyæmia, following suppuration, and one of pyæmia after amputation ; one after primary amputation ; two of phagedæna (in one amputation of the leg was performed) ; one of exhaustion, after amputation for gangrene.

Thirty cases of compound fracture of the long bones were admitted, details of which are given in a tabular

form. Twenty-five were of the lower extremity, and five of the upper.

There was a case of dislocation of the knee outwards, and another of dislocation of the semilunar cartilages.

There was also a case of dislocation of the astragalus from all its attachments. A gunshot wound of the thigh and 154 sprains complete the roll of accidents for the year.

Having passed all in review, Mr. Ring very pertinently asks, "What are the causes of those accidents?" and replies in a general way to his own question—"That carelessness on the part of the patients, or negligence on the part of those who should have seen after them," were the causes of these misfortunes. As instances, we may mention children suffered to run loose in the streets, or left in a room where their clothes caught fire; scaffold accidents from the carelessness or foolhardiness of the workmen; drunkenness; slips and falls in the streets from treading on orange-peel, &c. Besides such causes, fire proved fatal to one young woman through wearing a large crinoline.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

MODIFICATION OF THE OLD "ROYAL STITCH" FOR THE RADICAL CURE OF HERNIA.

By MAURICE H. COLLIS, M.D., F.R.C.S.I.

[Reported by EDWARD IRWIN SCOTT, L.R.C.S.I.]

EDWARD NEIL, æt. 45, labourer.—Inguinal hernia on the right side, of many years standing, originally oblique, but now with so short a canal as to be practically direct.

Operation, January 17, 1866.—Simple ligature of the two pillars of the external ring, and of a portion of the scrotal fascia, with platinum wire.

Mr. Collis having first pushed his left fore-finger up the ring, passed a Liston's needle, threaded with strong silk, under the inner pillar of the ring. The needle was entered through the integument, directly over the pillar. Having passed under the pillar, it was pushed across the ring, its point being manœuvred so as to take up much of the scrotal fascia which had been pushed up by the left fore-finger of the operator. The needle was carried on underneath the outer pillar, and out through the skin over the pillar. The loop being caught, the needle was withdrawn; a piece of platinum wire was passed through the loop, and drawn under both pillars. The needle, armed with the silk, was now passed across from one puncture to the other subcutaneously, and the silk being disengaged, the needle was withdrawn. By pulling the silk, Mr. Collis brought one end of the wire across subcutaneously, so that its two ends came to project out of the same puncture. These two ends were twisted together, and the loop which contained in its grasp the two pillars and a plug of scrotal fascia, was tightened until the ring appeared closed sufficiently. The ends of the wire were now cut off, and the loop was left in permanently.

Immediate result.—Extensive and deep suppuration, which, after several weeks, subsided, leaving a thick and firm plug. Every care was taken to prevent the descent of the hernia, but in a few weeks the plug was pushed aside, and the hernia became as large as ever.

He returned in eight months with a fistulous opening in the situation of one of the punctures; at the bottom of the sinus, the piece of platinum wire could be felt. It was removed, and he was advised to wear a truss.

Notes.—In this case, the immediate result of the operation left nothing to be desired, yet ultimately no improvement took place. This may partly be accounted for by the low intelligence of the patient, whose mental capacity was of the lowest, short of absolute idiocy. Yet there is no doubt that operations for the care of rupture do not yield, in this country, the results which were anticipated from the statements of Rothmund, Wützer, and others. Still, although seldom successful in closing the ring, they often so narrow it as to render a truss efficient to prevent the descent of the hernia.

REMOVAL OF HYPERTROPHIED NYMPHA.

Theresa Harrison, æt. 18.—Hypertrophy of right nympha (Sclerema). The disease had existed two years. The question, in this case, lay between the knife and the ecraseur. Mr. Collis selected the former for the following reasons—the base of the growth was very large, and it could scarcely have been removed by the ecraseur with completeness; secondly, the clean wound made by the knife promised to produce less deformity than the puckered and irregular cicatrix left by the ecraseur; besides, there was a probability of a more rapid cure by the knife, inasmuch as the stumps left by the ecraseur are remarkably slow to cicatrise.

The tumour was removed on the 17th January, 1866, by two semi-elliptic sweeps of the knife. The hæmorrhage was moderate, and was checked by cold affusion, and finally controlled by the numerous points of suture which were inserted to approximate the edges of the wound. Horse-hair sutures were used in this case. Mr. Collis uses them much in plastic and other operations. They are less irritating even than wire, and are more manageable, both in the matter of tying, and of subsequent removal. The wound healed kindly, and with rapidity, and the result appeared satisfactory.

Reviews.

PRACTICAL OBSERVATIONS ON THE HARROGATE MINERAL WATERS. By ANDREW SCOTT MYRTLE, M.D., London: J. Churchill and Sons. Harrogate: T. Hollins; R. Ackrill.

WE find in this little volume an agreeably-written account of the uses of the mineral waters which have rendered Harrogate so famous. Originality is scarcely to be looked for in a small and unpretending book of this kind, but Dr. Myrtle's remarks on "jaded brains" are well worth reading by many practitioners who are consulted by people living and working year after year in our large cities. Mineral waters are, perhaps, in England, in danger of being too much neglected. Continental physicians place much greater reliance than we do upon them as remedial agents, and we think they might be resorted to with advantage in many obstinate cases which are suffered to linger on without trying them.

Many people fancy there are no really potent springs in England. It cannot be too often repeated that no spa of its kind is superior to Harrogate, and that, where sulphurous waters are indicated, it is a work of superorogation to leave England in search of them. We are glad to find that Dr. Myrtle is not extravagant in his estimate of the virtues of Harrogate water, but speaks with that calmness and prudence which all rational physicians should cultivate.

A PRACTICAL TREATISE ON SHOCK AFTER SURGICAL OPERATIONS AND INJURIES. By EDWIN MORRIS, M.D., F.R.C.S. (ex.) London: Hardwicke, Piccadilly.

THE author of this work is Surgeon to the Spalding Dispensary and Union Infirmary, where he seems to have made good use of his opportunities. This is not the first occasion on which he has come forward as an author, for an announcement of a prior work on neuralgia appears on the fly-leaf. The present writer has not seen that, but he may remark that the new volume has proved sufficiently interesting to awaken a wish to do so. Not that there is anything striking or new in this treatise on shock, but in it is collected a good deal of information on this condition, scattered in various directions in medical literature, the whole being aptly illustrated from the author's experience. It is a very creditable thing for a gentleman engaged in laborious country practice, to devote his leisure time to committing to paper his thoughts and experience, and when these take the form of a readable essay like this, we are tempted to wish that many of his provincial brethren would follow his example. We are perpetually hearing laments of the quantities of medical knowledge running to waste in our

great metropolitan hospitals; but is it not equally true that the same waste is going on to an equal, or perhaps to a greater extent, in the country. How comparatively few of our provincial readers send us their cases for publication; yet we should be glad to see more of them in our columns, and still more glad to receive finished essays. How many of them constantly perform operations which are not the less interesting because done in the homes of their patients, or in the union infirmaries, or the dispensaries of our small towns! But we ought, perhaps, to confine ourselves to the subject before us—SHOCK. Dr. Morris gives especial attention in his work to the subject of shock from railway injuries. He takes an opposite view from that of Mr. Erichsen, and maintains it with considerable acumen. In some of his observations he would support the conclusions arrived at in a little book on railway injuries which we received a short time since. From his study and observation he deduces that the phenomena of *shock* are produced through the brain and nervous system, which are paralysed, whereby volition and sensation are temporarily suspended; that the effect is the same, whatever the cause of the *shock:* and that, when it causes death suddenly, the heart's action is arrested by the withdrawal of its nervous stimulus through the normal function of the brain and nervous system being completely annihilated.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 11, 1867.

A RECENT MEDICO-LEGAL INVESTIGATION.

ON the 26th and 27th ult., a special jury were called upon to decide a case in which a Surgeon brought against his landlord (a Pembrokeshire Magistrate, Trustee of National Schools and Mechanics' Institute, Chairman of Improvement Commissioners, and Member of Local Trinity Board) an action for assault. It appeared from the evidence that the landlord called on the surgeon about the house, when some altercation took place, which ended in blows. Plaintiff swore that defendant attacked him, and called his servant to substantiate this. The defendant swore that the plaintiff struck the first blow. In the course of the contest the defendant used his umbrella, and the plaintiff asserted that by it his skull had been fractured, leading to serious injury to the brain, for which he claimed damages to the amount of £7000.

In support of this, Dr. REID, of Milford, was called. Said there was a "dip" in the frontal bone, and that softening of the brain had commenced, which, in his opinion, would be ultimately fatal.

Dr. FORBES WINSLOW said in his opinion the plaintiff had sustained a severe injury to the bone, and that, immediately beneath it, he thought chronic disease of the membranes was established; that he had no hope of his recovery, but in all probability the patient would become an epileptic or paralytic, or his state would be reduced to one of imbecility.

Professor ERICHSEN agreed with Dr. WINSLOW as to the nature of the injury and the probable prospects of the patient.

For the defence it was urged that the plaintiff was the aggressor; that defendant only used his umbrella to parry the blows of his assailant, who could only have been injured by his own violence, and that the depression of the frontal bone was not caused during the contest at all, but was congenital.

Dr. GRIFFITHS, of Milford, who saw the plaintiff a few days after the assault, did not then notice any depression of the bone.

Mr. WOOD, of King's College, testified to his belief that the depression was only a natural one, such as is often seen, and produced two skulls with similar depressions. He, moreover, did not believe the handle of the umbrella that was produced would fracture the skull. He found no scar over the depression; it resembled one in his own skull. He did not consider the patient in a dangerous condition.

Professor PARTRIDGE, of King's College, gave similar evidence. He found only what he considered a natural depression, which is very common—nor did he discover symptoms of brain disease.

After the judge had summed up this contradictory evidence, the jury debated together for an hour without coming to any decision. They were again locked up. In ten minutes they returned into Court with a verdict for the plaintiff—damages one farthing!

Of course, such a verdict as this merely expresses the impossibility of the jurymen arriving at unanimity. One farthing would be a sorry compensation for a fractured skull, to say nothing of the incurable disease of the brain, alleged to have resulted, rendering the victim incapable of following his profession. And yet we can scarcely wonder at the jury resorting to such an unsatisfactory verdict, when asked to reconcile such a series of contradictions. The general evidence was as contradictory as the professional, but it is with this latter alone that we are concerned. Is it really so difficult to diagnose fracture with depression leading to cerebral disease, from some congenital inequality in the external surface of the bone? Here we have professional witnesses of high character and standing arrayed in absolute contradiction as to a series of facts which the public are apt to consider ought to be easily settled. It is another instance of the unsatisfactory way in which our medico-legal investigations are conducted. Nothing of great importance is perhaps involved so far as the public at large is concerned. The quarrel is a private one. The question whether a man has been injured in such a quarrel, is as private as is that whether he is entitled to compensation from his adversary. But it is of public importance to know whether the traces of such injuries are really so slight, that the doctors may be expected, as a matter of course, to disagree. It concerns the dignity of the profession to know whether the diagnosis and prognosis of injuries to the skull, ending in disease of the brain, are positively so obscure, that men of the highest reputation may be expected to be unable to come to an agreement on any given case.

MEDICAL EVIDENCE ON RAILWAY INJURIES.

DURING the week an action against the South-Eastern Railway has been decided, which illustrates forcibly many

of the observations we have from time to time made respecting claims for compensation for injuries. The plaintiff, Mr. THORPE, is a professor of music, who estimates his average income at £500 per annum, and who met with his injury at Greenwich Station, on the 4th of last April. It appears that on arrival at the Greenwich Station, the train came into collision with a stone wall, and Mr. THORPE, who was reading at the time, was thrown against the opposite seat. He was rendered insensible, and taken to the surgery of Dr. R. GOODING, who afterwards accompanied him back to London. Dr. GOODING deposed that he is still suffering from the effects of the accident, which, in his opinion, set up "inflammation of the fibrous membrane covering the spinal chord." He believed that he will be invalided for three years or more, and that ultimate recovery is very doubtful; while, through a wound on the face, he will never recover the sight of one eye.

Professor ERICHSEN, and Dr. SCOTT, of Upper Woburn-place, supported this view. Both these gentlemen had been called in consultation at an early period, and from the first seem to have entertained a gloomy prognosis.

On the part of the company it was not denied that the plaintiff had been injured, but the case went to the jury on the question of damages, which were laid at £8000.

The defendants called Mr. JOHN ADAMS, of the London Hospital, who did not consider that any injury to the spine had been sustained, but thought the symptoms arose from concussion of the brain, and that a good recovery might be hoped for in about a year.

Dr. RUSSELL REYNOLDS, and Mr. CLARKE, of St. Thomas's Hospital, supported this view.

The Judge having summed up the case with that impartiality and precision which characterises the English bench, the jury retired, and in about a quarter of an hour came to a decision, fixing the damages at £2000.

No doubt the jury that thus easily arrived at a conclusion on this conflicting evidence may feel that substantial justice has been done; but we who look at these matters from a professional point of view, may well wonder by what mental process the decision was thus rapidly reached. Would that we found it as easy to reconcile the opposing *dicta* of distinguished men. An enthusiastic young surgeon may fancy he can diagnose concussion or other injury of the brain or spine. He may have been asked about such things at his examination, and proved to the satisfaction of the powers that be his fitness for his diploma. He will have heard the various points of distinction laid down by his professors with such clearness that he may hope to be able to avoid mistakes, and by the exercise of care and observation reach some degree of certainty in diagnosis.

But when he leaves the hospital and takes upon himself the responsibilities of practice, what will he discover? The first accident to which he may be called, may be such as this, and all he has learned of diagnosis and prognosis may avail but little. Here, we find, and it is no unusual occurrence, that the most experienced teachers and practitioners may be completely at variance. Two of the teachers in one school give as opposite an account of the case in the witness-box as can well be imagined, and that is not all the contradiction, as will be seen from the account we have given. What is the cause of this? Is there no certainty—or, if not that—is there, at least, no approximation to it in the medical world? Is all chaos—darkness—confusion? Do the sad facts presented to notice in accidents and injuries, infallibly lead different men to opposite conclusions? If so, surely both cannot be right. Rather might it be—if *one* may be wrong—that both may be, and that the true deduction is yet to be discovered. Mr. ERICHSEN enjoys a high reputation as a surgeon, and great influence as a teacher, and has devoted some attention to the questions at issue. Dr. RUSSELL REYNOLDS is a colleague at the same school, and a physician whose opinion is held of the highest value in all affections of the nervous system, while his masterly lectures at the College of Physicians, which were reported in the MEDICAL PRESS AND CIRCULAR a few months ago, show how much thought he has bestowed upon the principles and rights involved in actions of this kind. Yet he does not see as does his colleague.

Mr. ADAMS is the Senior Surgeon of the London Hospital, and has long been the Surgeon to the South-Eastern Railway Company. He is known to have had as large an experience of railway injuries as any one living—perhaps larger. He agrees with Dr. REYNOLDS, and thinks the plaintiff has a much more favourable prospect before him than was represented by his other advisers. For the sake of the patient we sincerely hope they may be right.

No doubt, to the sufferer, an accident can scarcely be compensated by any money payment. Few men would willingly peril life or limb at the most liberal tariff. Yet we are bound to recognise the fact that railway companies have their rights as well as passengers, and, therefore, some mode of appraising injuries must be employed, and we have nothing better to suggest than the decision of twelve disinterested Englishmen. These, however, look for guidance to ourselves and our Profession, and we do think it is matter of great moment to find equally skilled witnesses testify to so much uncertainty. Either our art is based on principles, or it is not. If not, let us boldly state as much, and not exhibit ourselves continually, in our chief public capacity, as guided by nothing but the merest conjecture.

THE APOTHECARIES' COMPANY OF IRELAND.

SINCE our observations of last week appeared, we have received a letter from Dr. Leet, representative of the Apothecaries' Company on the Medical Council, which we append.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Under the above head a communication appeared in your issue of Nov. 27, with the signature "Anti-Monopolist," condemning "the action taken by the Apothecaries' Company of Ireland against the chemists and druggists of Dublin regarding the compounding of physicians' prescriptions," and demanding the "repeal of the Act of the Irish Legislature, whereby the Apothecaries' Company obtained a monopoly of compounding." The writer then goes on—"But, as regards the medical profession, this particular monopoly was of no injury to it so long as the holders of it were duly mindful of the maxim, *ne sutor ultra crepidam*, and did not intrude themselves into the medical profession. As soon, however, and to the same extent that they began to practice, the monopoly became injurious to the profession; and since they contrived to obtain a recognition of their licence as a qualification to practice medicine, through the accidental naming of the company, in ignorance of the real nature of its charter, in the Medical Act of 1858, the monopoly of compounding has become such an outrage on common sense that its continuance could only be vindicated on the plea that it was never enforced." Now, Sir, I beg leave to contravene the statements herein advanced for depriving the Company of its control over pharmacy; the apothecaries of Ireland had no need to *intrude* themselves, as "Anti-Monopolist" alleges, into the medical profession, for they had been legally recognised medical practitioners long prior and subsequent to the Act of Incorporation, and the recognition of the licence

in the Medical Act of 1858, so far from happening through *accident* or *ignorance* on the part of the Legislature, was the result of a full Parliamentary inquiry, and of the deliberate vote of the House of Commons. The pleas that have been urged are, therefore, insufficient to warrant the demand of "Anti-Monopolist," nor does any reason exist why the relative position which has hitherto obtained between physicians and apothecaries should undergo change; and even should such a case arise as that an apothecary should "refuse to compound the prescriptions" of a physician, or "charge by a prohibitory tariff for so doing," the Medical Act empowers every registered practitioner to make up and charge for the medicines he prescribes for his patients.—I am, Sir, your obedient servant,

CHARLES HENRY LEET, M.D.

The pretension of the Irish Apothecaries' Company to grant degrees in Medicine, and their right to require proper qualifications in persons dispensing medicine, are perfectly distinct questions. Whatever may be said by the exponents of the diploma—giving rights of the Company, we believe we express the almost universal opinion of the Profession, when we say that, in grasping at a function which they never were intended to discharge, and which, we are convinced, they will never succeed in firmly establishing, they have abandoned their real and much needed office of conservators of Pharmacy in Ireland, and having repudiated that charge, have no right to be supported in the monopoly of it.

The Company, nevertheless, has our entire sympathy in the effort to secure a sufficient pharmaceutical knowledge in dispensing medicine, and if they would confine themselves to the discharge of such a function, they might reckon on the entire support of the Profession.—ED. M. P. & C.

A FREQUENT CAUSE OF RAILWAY INJURIES.

WHILE a superior court was trying Mr. Thorpe's claim for compensation against the South-Eastern Railway Company, upon which we have commented in a previous article, the police magistrates of Greenwich and Hammersmith investigated charges brought by other companies against passengers, for unlawfully leaving their trains while in motion. In each case the charge was proved, and a fine inflicted. In one the prisoner complained bitterly of the proceedings, and declared they were only brought to prevent his seeking compensation, which he never wished to do. Now, there can be no doubt that numerous accidents result from this practice of getting out of a train before it has come to a stand. The companies are now—very properly we think—forbidden to lock their passengers in. They have posted warnings in all directions, and yet the practice continues. The foolhardiness of some, and the restlessness of others, is a constant source of danger to life or limb. The companies have no doubt been sometimes mulcted in damages for accidents arising entirely from the folly of passengers. What, then, are they to do? The public will submit to but little restriction, and directors are, therefore, justified, in any clear case, in summoning before a magistrate those who run such risks, *against this bye-law*, which is chiefly made in the interests of passengers themselves, and should, consequently, be as strictly enforced as practicable.

Notes on Current Topics.

Dr. Richardson's Address to the St. Andrews Graduates' Association.

IT is a satisfaction to us to be enabled to lay before our readers the very eloquent and scholarly address of Dr. Benjamin W. Richardson to the St. Andrews Graduates' Association. A fitting epilogue to the numerous inaugural essays, and to the season of addresses which we have just passed, Dr. Richardson's essay, in our opinion, occupies almost the first place. With such an example of thoughtful reasonings and exhaustive erudition before them, the Graduates of St. Andrews should afford the most encouraging promise for the future of their Association.

SIR WM. FERGUSSON is a capital liberal. At any rate, he made a speech the other day, the liberality of which was quite refreshing after the absurd cant about special hospitals, of which we have heard so much. The occasion was the first general meeting of the Victoria Children's Hospital. Sir William alluded to the question of special and general hospitals in a manner at once happy and just. This particular charity has been upheld by one of our contemporaries that has said very hard things about other special hospitals. Are any of its writers on the staff of the new special hospital?

Mr. CONDY has received the medal of the International Society for aiding the wounded in time of war, for his discovery of the uses of the permanganates in military surgery, and as disinfectants.

Statham Defence Fund.

IN the unjust prosecution to which he has been subjected, to which we alluded last week, Mr. Statham has received the entire sympathy of the Profession. As we then stated, Mr. Statham had, pending the verdict in his case, declined to accept any pecuniary aid, but now that he has by that decision been declared free of all suspicion, he has intimated his willingness to accept the assistance of his professional brethren, in defraying the very heavy costs of his defence. A meeting was held with this object, on Monday last, and Mr. C. J. Fox, 27, Mortimer-street, Cavendish-square, is named treasurer.

The Strand Guardians Again!

THIS notorious body is desirous of filling up the cup of its iniquity, and showing the public how impossible it is for such persons to comprehend the simplest rules of duty. They have actually suspended Dr. Rogers. It has long been known that many of them were watching for a pretence on which to get rid of the man who stood so prominently forward as the friend of the sick poor. But they are weary of watching, and, last week, without any notice of the subject having been given, it was brought forward, and, by a decree of the local despotism under which the parish groans, he was suspended. So high-handed a wrong was too much to be passed by, and a protest has been sent to the central authority—the Poor-law Board—headed by one of the guardians who was not present at the meeting. It remains to be seen whether the Central Board will re-instate and compensate Dr. Rogers, and rebuke the local magistrates; or whether it will suffer such an iniquity, and thereby proclaim its own incompetency. If the latter, it ought to be the first Act of Parliament to sweep it away.

The Climate of Abyssinia.

Dr. BLANC, a prisoner of King Theodore at Magdala, made some time since a series of meteorological observations at that place which will now be, so far as they go, a most valuable guide to what the troops have to expect in the campaign in which they are now engaged. His observations of temperature for the months of January, February,

March and April, show an extreme heat of 82°, and a minimum of 75°, a very bearable range of temperature, and the less oppressive because it is accompanied by a good deal of rain. The months through which these observations were taken, are exactly those in which our troops may be expected to be engaged, but as they are for one season and one locality only, they are of course to be taken only as approximate.

"Public Opinion."

The Editor of *Public Opinion* replies to the remonstrance which we addressed to him the week before last, by saying—"We see no reason to exclude from our columns unflattering comments on the medical profession, any more than on other professions." We beg to remark that we have no wish that the Editor should do so, for our profession can endure criticism without fear. What we do ask is that the Editor will exercise over his correspondents that degree of supervision which is necessary to keep clear of transparent falsities and fanatical abuse. If any of the correspondents of *Public Opinion* has an idea which is worth offering to the public, let it be inserted, but we are certain the Editor will not assert that the miserable effete, Morrisonian nonsense, which has gained publicity through his leniency, is fit matter for the study of any educated or intelligent reader.

An Engine Driver's Grievance.

The *Times* has devoted a leader to the question of the exposure of engine-drivers to the weather, pointing out that in America the drivers are sheltered in a sort of glass-house, and that on our own lines in India, a roof has been found necessary on account of the power of the sun. Why should not these men be protected from the fierce winds and blinding snows of England? It will not be denied that such exposure is hazardous to the men. We venture to suggest it may be dangerous to the public; for with such hurricanes as we have lately witnessed, it is not in human nature to keep a sharp look out, even supposing the organs of vision to be capable of doing so. Who would blame the poor fellow in these winter north-east winds, who crouched down before his fire to avoid facing the blast as much as possible? We trust the companies will at once stir in the matter. They owe it alike to the drivers, the passengers, and themselves.

Yellow Fever

The letter on Quarantine signed F.R.C.S. Eng., which lately appeared in our columns, has received fresh significance from the renewal of yellow fever on board vessels coming from St. Thomas. Some of our contemporaries were rather prematurely taking comfort that the late hurricane had banished the fever. The tale of the *Tamar* confutes the idea, for it is positively stated that the disease was contracted while lying alongside the coal warf at St. Thomas. The constantly unhealthy condition of this place renders it a subject of moment, that passengers should be advised to avoid this line. Whatever the so-called exigencies of trade, we believe that when once passengers refuse to travel by unhealthy routes, others will be found equally convenient. Letters and packages may be sent as the authorities will. We look to the public to enforce their own safety. It is poor economy, under any pretence, to expose ourself to the risk of disease, as well as to the detentions of quarantine.

Pyretic Saline.

What is that? Some people might imagine it to be something of a very peculiar kind. It is well that its nature has been stated in a court of justice. The case was decided last week by Vice-Chancellor Sir W. P. Wood, who refused to protect this so-called patent medicine. The first person to use the words *pyretic saline* in combination, wished to restrain another maker of *pyretic salts*. Plaintiff said the medicine was nothing more than the saline combination used by Dr. Steevens in the treatment of cholera, and that author's affidavit was produced to the effect that the plaintiff's preparation was that recommended by him in his works.

What a revelation is this? Is this an invention? If so, the process is easy. Take a medical work—select a prescription—give it any name which suits your fancy, and you are the *inventor* of a remedy! and, moreover, you may make your fortune by advertising it, and if careful how you manage, you may restrain others from selling it under the name you have selected. This is the sort of thing that the profession occasionally recognizes in spite of its tirades against such remedies. We wonder if medical authors generally would assist the inventors in such a case.

The Brown Bequest.

The Senate of the University of London have determined to carry out in its original intention, the bequest of £30,000 to them by the late Mr. Brown. The contest in the last session of Parliament, and the successful opposition on the part of the University of Dublin to the Bill introduced to enable the Senate to apply the fund to other purposes, will be in the remembrance of our readers. If, within a given time, the University of London had failed to carry out the directions of the testator—the founding of an Hospital for the treatment of the Diseases of Domestic Animals useful to man—the money would, *ispo facto*, have passed to Trinity College, for the foundation of Professorships in Gaelic and Sanscrit. Having been defeated in their object of devoting the bequest to other purposes, the Senate, sooner than lose it, have taken the preliminary steps of appointing a Committee to draw up a plan for carrying out the testator's intentions.

The following general order has been issued by the Adjutant-General, Lord William Paulet:—"Medical officers are for the future to be exempted from serving as members of all boards except Medical Boards. Should a medical opinion be required by a military board, reference must be made to the Medical Officer, who will furnish his report in writing, or give evidence in person if thought necessary. Medical Officers having the relative rank of field-officer, are to provide themselves with chargers and horse furniture, and to appear mounted when required to attend parades. On official occasions when guests are invited to a mess in the name of the officers of a regiment, the senior combatant officer must always preside, and no second place is to be recognised."

Scottish Hospital.

This is an ancient institution. It originated in the efforts of some Scotchmen to relieve the necessities of their poorer countrymen in London, by voluntarily raising a fund for that purpose. This was in the reign of James I. The subscribers continued their efforts for some years, simply as a society, but at length obtained from Charles

II. a charter of corporation, in 1664. Greater endeavours became necessary as the number of Scotch residents in London increased, and the society applied for a second charter with ampler powers and immunities, which was granted in 1676. As years rolled on, it was found desirable to extend the benefits of the institution still further, and render them more permanent. To accomplish this object a third charter was given in 1775, in the reign of George III., whereby the hospital was founded under the government of a president, six vice-presidents, a treasurer, and governors. At first it was regarded more in the character of a poor-house, and, in consequence, many refused the assistance which it offered. Since then, having transferred its locality from Blackfriars to Crane Court, Fleet-street, the prejudice has subsided, and it has carried on its operations with increasing success. A pension of £15 per annum is allowed to twenty poor and infirm persons, above 72 years of age, and £10 to 110 above 68 years of age. Five special pensions of £25 each, were appointed in 1864, which are awarded to persons at least 65 years of age, who from having occupied respectable positions, have become reduced, but who have an income of not less than £15, and not more than £30 per annum; they must also have resided in London at least 20 years. Fifty persons on the casual list also receive £6 a-year each; and monthly relief is afforded to 200 persons at the discretion of the committee. An annual court of the governors of this corporation was held on St. Andrew's day, when the income of the last year was stated to be £4903 19s. 9d.; and the two hundred and third annual festival was celebrated the same day, at the Freemason's Tavern, Great Queen-street. The grand hall was decorated with highland flags and banners, and about 250 persons sat down to dinner. The Duke of Roxburghe, the president of the institution, took the chair.

The Poor in Scotland.

In civilized and uncivilized communities the poor are alike a necessity. When a country has made considerable advances in the social scale, and secured for itself not only the necessaries but the luxuries of life, it might have been expected before the hard fact became apparent, that the poor would disappear, or at least become comparatively few. Now, however, we know differently, and are too much familiarized with the existence of poverty and wretchedness to be surprised at it. Many causes are in constant operation which inevitably produce it, guard against them as we may. Recklessness, waste, misfortune, disease, and a thousand other agencies, are constantly exerting their influence in the human family, and bringing some, with their own concurrence, and others in spite of themselves, into penury and dependance. Nothing can be done but to acknowledge the fact, and to lessen the attendant evils as much as lies in our power. Whether in this country the poor are on the increase cannot be determined at once; but there are periods when, from whatever cause it may arise, the number of those dependant on parish relief is much larger than at others. From the report issued by the Board of Supervision for the relief of the poor in Scotland, we find that in the year ending the 14th May last, the number of registered poor relieved was 100,756, being an increase of 3082 over the preceding year. The number of their dependants was 63,648, which showed an increase of 3056. The casual poor relieved in the year, and their dependants, numbered respectively 48,519, and 42,657, being an increase in the former of 4426, and in the latter of 2296. Besides which there were 12,126 casual poor registered, with 12,606 dependants. On the first July last, the number in the workhouses was 8291, which comprised 1549 sick persons, 999 lunatics, and 1267 children. The sum expended in relief and management (including £50,419 for buildings) was £807,631, which is £24,503 more than the year before. Long as our experience of these things has been, we have not yet learned the method of arranging for the best. There are sad complaints of workhouse mismanagement on this side the Tweed, and on the other the report shows that the Board had to investigate twenty-three charges against the acting authorities, which were variously disposed of. Whether we shall ever arrive at perfection in the treatment of our poor is a problem which remains to be solved. At all events we are far enough from it now. It certainly is high time for our authorities to take up the subject in good earnest.

Edinburgh University.

The Association for the better endowment of the University of Edinburgh, held its annual meeting on the 29th November last. Lord Deas occupied the chair. The Committee presented their report, from which it appears that the disposable funds would not permit the Association to establish any new fellowship. Still, they thought that a second fellowship should be established, and that a general effort should be made to secure that object. The efforts of the Association, on the whole, were of a satisfactory character. Some bequests had been made to the University. One of about £7000 by the late Mr. J. E. Baxter, of Dundee, which the Association are to employ as they think best, for the purposes of the University; another of £1000 by Miss Hannah Harrison, with which a bursary, open to third years' students, had been formed. Miss Mary Ettles also had put in trust a sum of £2000, to establish Divinity Scholarships, in memory of her late brother, Mr. John Ettles. Three Scholarships had been established, to be held for three years, and one to become vacant every year. The Maxton Divinity Scholarship, £40 annually, had now become available, and the Shaw Fellowship, a memorial of the late Sir James Shaw, M.P., for the city, had been established, of the annual value of £160, and would be bestowed after a competitive examination in mental science. The report regretted that the deputation to Lord Derby for an increase of professional endowment, had met with no better success, and informed the Association that an appeal was about to be made to the public, to provide additional accommodation for the departments of chemistry and anatomy. The report met with unanimous approval.

We observe, with regret, that the "Dental Review and Quarterly Journal of Dental Science," after an existence of ten years, under the administration of Mr. Robert Hulme, F.R.C.S., has died out. This special branch of our Profession has a sufficient *clientelle* to support a periodical adapted to the requirements of its practitioners, and as this branch of Surgery cannot be at all adequately represented in ordinary medical literature, it is to be regretted that a journal which has deserved so well of the Profession, and been sustained for so long a period, should fall to the ground.

Medical School Returns in Dublin.

To the opinion which we expressed last week, that the returns of the Anatomical Committee are not trustworthy as representing the real attendance at each school, we may add another source of error applicable specially to the University of Dublin. By the University regulations :—

"Medical or Surgical Students, being Junior or Senior Sophisters on the College Books, and in actual attendance on the full courses of the Medical Session necessary to complete an 'Annus Medicus,' are exempted from the classics of the Junior Sophister year, and from one of the three optional courses (Mathematical Physics, Experimental Physics, or Classics) of the Senior Sophister year. To obtain this privilege, it is necessary to be matriculated in medicine, and that the proper certificates of attendance be submitted by him through the Registrar of the Medical School to the Senior Lecturer."

It thus appears that an Art Student matriculating in Medicine at a nominal fee, and taking out two courses of lectures, (this being the requirement for an "Annus Medicus,") may thus escape examination or study in certain subjects of his two latest Art years. The University regulations are, as far as we can see, not specific as to whether the courses to which the Art Student is entitled without payment, or those which he gets at half the usual fees, are sufficient to entitle him to claim exemption. In any case, the two courses would cost only six guineas. It is possible, therefore, if we understand the regulations, and we speak under the correction, for Students who have not the least intention of going to the Profession to avail themselves of these rules, for the purpose of relieving themselves of part of their Art curriculum, and in such case, of course, they would enter into the return published in our last.

Surgical Society of Ireland.

The opening meeting of the Surgical Society of Ireland was held on Friday evening last at the Royal College of Surgeons, and was very numerously attended, both by the senior and junior metropolitan members. The chair was occupied by Robert Adams, M.D., the President of the College, who delivered the inaugural address. In it he alluded to the usefulness of the Society and similar associations, as leading to an interchange of experience and opinions with the Profession. Communications were read by Mr. Fleming on a Case of Tetanus Supervening on Injury of the Head; by Dr. Morgan—On a Case of Disease of the Wrist-joint; and by Mr. E. Hamilton—On the Occurrence of Trichina Spiralis.

We hope shortly to publish the address and these communications.

Detection of Organic Matter in Waters.

Sub-sulphate of alumina has been recommended by M. Bellamy as a test, both quantitative and qualitative, for organic matter in solution. A precipitate of the alumina, combined with earthy bicarbonates, and organic matters, is thrown down after a few hours, and may be roughly estimated by the height at which it stands in a graduated tube.

The Health of Dublin.

The report of Dr. Mapother, the Medical Officer of Health for the city, for the last month, gives the following statistics :—

"During the past four weeks 483 deaths were recorded by the Registrar-General, against 450 during the preceding, and 678 and 511 during the corresponding week of last year and 1865 respectively. The rate was, therefore, very low, viz. :—1 in 527, and in other cities it was as follows :—London and suburbs, 1 in 494 ; Central London, 1 in 555 ; Liverpool 1 in 416 ; Glasgow, 1 in 453 ; Bedford, 1 in 582 ; Cork, 1 in 502 ; Limerick, 1 in 667 ; and Waterford, 1 in 443. Three times as many deaths in these provincial towns are recorded in some weeks as in others, which must be owing to irregular registration, as the fluctuations of disease are never so astounding. Zymotics destroyed 124 persons, 24 of the deaths being by fever of that disease, 153 cases were admitted into the Hardwicke and Cork-street Hospitals from city dwellings, against 162 and 262 during the corresponding months of 1866 and 1865. During these former periods the deaths by this disease which, while it is occasional in English cities, has been heretofore permanent in Dublin, were respectively 20 and 41. For previous years it was much greater, and in the first year of registration, 1864, when the returns were necessarily imperfect, the number of deaths by fever in the November four weeks, was 43. The admissions into Hardwicke and Cork-street Hospitals were chiefly from the districts of Clanbrassil-street, Cork-street, Bride-street, Church-street, and North Brunswick-street. Scarlatina caused 42 deaths. As the contagion of this disease is closely adherent to bedding and dress, the owners of places in which cases occurred have been urged to have the articles sent to the Disinfecting Chamber, Marrowbone-lane. Twenty-three children died from whooping-cough, consumption caused 52 deaths, and bronchitis 60 against 50 during November, 1866. This increase may be attributed to the low temperature alone, but the greater impurity of the air, owing to the quantity of coal consumed, seems to have some effect, for in rural districts, the fall of temperature is not accompanied by so great an increase of death-rate."

Visitation of Irish Examinations.

The following members of the Branch Medical Council for Ireland, have been appointed to carry out the Visitation of Examinations :—Mr. Hargrave, for the University of Dublin ; Dr. Apjohn, for the King and Queen's College of Physicians ; Dr. Leet, for the Queen's University ; Dr. Stokes, for the Apothecaries' Hall ; and Dr. Aquila Smith, for the Royal College of Surgeons.

According to the lately published returns, 26,745 children were born in Vienna in the year 1866. Of these, 13,802 were illegitimate—positively a majority of the births out of wedlock. Some have said that the more the illegitimate births, the less the prevalence of prostitution. Is Vienna an example? It would be interesting to find out the relative proportion of venereal disease. At the census of 1863 the population was 560,000.

A movement is on foot to start in the centre of London a Temperance Hospital, which is to be conducted on strictly teetotal principles. Doctors will be precluded from prescribing "alcoholic poisons." We suppose the originators of the scheme are satisfied that they can find medical men willing to occupy such a position. We shrewdly suspect that the poor will, whenever they have the choice, prefer the older charities.

The Doctor in the Witness-box.

THE table of a Court of Law is certainly not the position in which medical men show to greatest advantage. It can never bring credit to the Profession that its members should appear in public to swear at the prompting of an attorney, and without that honest and unbiassed consideration of their evidence, which alone can give it any weight with a jury.

A most extraordinary and discreditable performance of this sort came to light last week, in the trial of the case of Johnson *v.* the Midland Counties Railway, at Westminster. The plaintiff had suffered from the collision at Colney-hatch, and was immediately attended by a medical practitioner, whom we spare the penalty of publicity, in the hope that the lesson he has learned may impress on him the greater import of truth than fees. This gentleman wrote three certificates, all of which were put in evidence. Here is the salve for the patient :—

"This is to certify that I am attending Mr. Johnson, undertaker, of 8, Hethpool-street, Hall-park, Paddington, suffering from severe concussion of the brain and compression, produced by extravasation from a ruptured vessel, caused by the railway accident at Colney-hatch, August 30, 1865, and I have no doubt but that he will feel the effect of it for some time."

After a persuasive conference with the Surgeon to the Company, the Medical Practitioner wrote a second edition as follows :—

"I hereby certify that I found nothing serious in the case of Mr. Johnson, 8, Hethpool-street, Hall-park, Paddington, and considered him not injured by the accident at Colney-hatch."

And after a further demonstration on the part of the Company's Agent, he produced the following :—

"I hereby certify that I found nothing at all the matter with Mr. Johnson, of 8, Hethpool-street, Hall-road, Paddington."

It having been pointed out to this gentleman that, considering that between his first and last certificate only forty-eight hours had elapsed, his change of opinion was rather peculiar, he had no better excuse, as might have been expected, than that, "at the time he had been greatly overworked, and was called on at an unusually early hour in the morning."

Happily the Profession, generally, knows no distinction between a falsehood on paper and a falsehood in the witness-box, and it has never yielded, even to the persuasion of a railway doctor's check-book, to perpetuate a system of lying, which, we presume, was never intended for the eye of the public.

A DECREE has been issued by the French Ministers which will diminish vivisection. It is sad that the practice should not have been absolutely abolished. Would those who think it necessary for veterinary students to practice operations on the living animal, in order to perfect themselves, like to be the subjects for surgeons to try their "'prentice hands" on ?

THE *Delhi Gazette* of October 15, contains an excellent article on the injustices to Indian Medical Officers, and says, if Government desire to disgust military Medical Officers and prevent them from taking civil appointments, it would be better to say so openly.

Proceedings of Societies.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE Society starts well. The first anniversary session (if it is not a misnomer to call it so, when the Association has been only six months in existence) was held at Willis's Rooms, St. James's, London, on the 2nd and 3rd inst. From the report of the Council, which was approved, on the motion of Dr. Thorburn, seconded by Dr. Waring, it appeared that 402 graduates had already joined. The report gave an account of the origin of the Society, and the purposes it is intended to serve; namely—to obtain representation in Parliament, and in the Council of the University ; to promote the advance of scientific medicine, and to cultivate brotherly feeling and good-fellowship ; and to accomplish these ends it asks for the united and vigorous action of the Graduates of St. Andrews.

After this, Dr. SEDGWICK read a paper on the University of St. Andrews and its Medical Graduates, of which we purpose giving a fuller account. He pleaded for simple justice to the medical graduates, that they might be made equal to their fellows, and showed the futility of the present regulations, whereby a limitation in the number and not the stringency of the tests is made the evidence of the sufficiency of the examination for non-resident graduates.

A "cordial vote of thanks to Dr. Sedgwick for his admirable paper," was proposed by Dr. WYNN WILLIAMS, and seconded by Dr. ROYSTON.

Dr. Davey, Dr. Edwards Crisp, Dr. Shorthouse, and the President, took part in the discussion which followed.

Dr. WYNN WILLIAMS then proposed, and Dr. ROYSTON seconded, the following resolution :—"That the Lord Advocate, and, if necessary, the Right Hon. B. Disraeli, be requested to receive a deputation from the St. Andrews Medical Graduates' Association, on the subject of the franchise of the University, and that all members of the Association be requested to join the deputation."

The following officers were then elected for 1868 :—*President*, B. W. Richardson, M.A., M.D., F.R.S., F.R.C.P. Lond., London. *Vice-Presidents*, H. Day, M.D., M.R.C.P. Lond., Stafford ; J. Davidson, M.D., C.B., M.R.C.P. Lond., Insp.-Gen. Hosp. and Fleets, Greenwich ; W. Thiselton Dyer, M.D., London ; R. Greenhalgh, M.D., M.R.C.P. Lond., London ; P. Leonard, M.D., M.R.C.P. Lond., Insp.-Gen. Hos. and Fleets, Norwood ; T. Harrington Tuke, M.D., F.R.C.P. Edin., M.R.C.P. Lond., London. *Council*, G. W. Balfour, M.D., F.R.C.P. Edin., Edinburgh ; T. Ballard, M.D., London ; W. Bloxham, M.D., London ; W. Cholmeley, M.D., M.R.C.P., London ; W. F. Cleveland, M.D., London ; H. Collettt, M.D., Worthing ; Edwards Crisp, M.D., London ; J. G. Davey, M.D., M.R.C.P. Lond., Bristol ; C. Drysdale, M.D., M.R.C.P. Lond., London ; T. O. Dudfield, M.D., London ; G. Fayrer, M.D., F.R.C.S. Eng., Henley-in-Arden ; W. Dean Fairless, M.D., Coupar-Angus ; L. O. Fox, M.D., F.R.C.S., Broughton; S. Day Goss, M.D., London ; J. Hughlings Jackson, M.D., M.R.C.P. Lond., London ; M. Prosser James, M.D., M.R.C.P. London ; A. Keiller, M.D., F.R.C.P. Edin., F.R.S., Edin., Edinburgh ; J. Macintyre, M.D., Odiham ; J. F. Nichols, M.D., Devizes ; W. O'Connor, M.D., London ; A. Pollock, M.D., F.R.C.P. Lond., London ; J. T. Powell, M.D., London ; W. Procter, M.D., York ; E. Ray, M.D., F.R.C.S., Dulwich ; W. Roden, M.A., M.D., F.R.C.S. Eng., Kidderminster ; Joseph Rogers, M.D., London ; D. Lloyd Roberts, M.D., Manchester ; J. Seaton, M.D., F.R.C.P., Edin., Sunbury ; T. Skinner, M.D., Liverpool ; Spencer Thompson, M.D., Torquay; R. Uvedale West, M.D., Alford ; J. Whitmore, M.D., London ; A. Wynn Williams, M.D., London. *Honorary Treasurer*, J. Paul, M.D., M.R.C.P. Lond., F.R.C.P. Edin., F.R.C.S. Eng., Camberwell House, Camberwell, London, S. *Honorary Secretary*, Leonard W. Sedgwick, M.D., 2, Gloucester-terrace, Hyde-park, London, W.

Some alterations of the rules providing for the election of members by ballot for their expulsion under certain circumstances, and for the publication of the transactions of the Association were then carried unanimously.

On Tuesday, the following papers were read :—"Report on Ozone," Dr. Day, Stafford. "Report on Disinfectants," Dr. Procter, York. "Septicæmia," Dr. Wynn Williams. "On the Sulphite of Potash," Dr. Nichols, Devizes. "Tubercle in man and the lower animals, in relation to the supposed zymotic nature of the disease," with numerous preparations and draw-

ings, Dr. Edwards Crisp, London. "Phthisis, its Nature and Antecedents," Dr. Drysdale, London. "Gastrotomy in Extra-uterine Pregnancy," Dr. Lloyd Roberts, Manchester. "Meteorology, in relation to Cholera, with observations on Osmose," Dr. Moffat Hawarden. "Electricity, the force causing the coagulation of the Blood," Dr. Shettle, of Cannes. "The Ergot of Grasses," Dr. Uvedale West, Alford. "Treatment of Fistula," Dr. Mackinder, Gainsborough. "A national means of inducing Economic Self-provision among the Labouring Classes," Dr. Cordwent, Taunton. "A New Inhaler, Dr. Junker, London. "Tracheotomy in Diphtheria," Dr. G. Buchanan, Glasgow. "A Case of Placenta Previa," Dr. Smith, Warrington. "On the Microscopic detection of the Alkaloids," Dr. Sedgwick, London.

On several of the papers animated discussions took place. Among those who took part in them were Dr. Day, Dr. Edwards Crisp, Dr. Wynn Williams, Dr. Lloyd Roberts, Dr. Maund, Dr. Coles, Dr. Drysdale, Mr. Haviland, and Dr. Sedgwick.

Dr. RICHARDSON delivered a most powerful and eloquent address on Research in Medicine, which was received with great enthusiasm by a numerous and distinguished audience, among whom we noticed Sir T. Watson, Bart., Admiral Sir E. Belcher, K.C.B., and many well-known members of the profession. See page 523 of this number.

Dr. DAY proposed, and Dr. MACKINDER seconded, in very warm terms, a vote of thanks to the President for his eloquent address.

Dr. EDWARDS CRISP proposed, and Dr. HUGHLINGS JACKSON seconded, a vote of thanks to the hon. secretary, for his able and zealous discharge of the onerons duties of his office.

Inspector-General LEONARD proposed, and Dr. DAY seconded, a vote of thanks to exhibitors.

On the tables were a very complete collection of microscopes and microscopic preparations, by Messrs. Collins and Murray and Heath. Among the novelties exhibited by Messrs. Murray and Heath, we may mention their new demonstrating class microscope, in which the object can be secured in a shallow box, and when properly placed, locked firmly on the stage. The body of the instrument can be locked in its place by the same key, and the final adjustment made with the eye-piece. The instrument can then be passed round a class-room without possibility of injury, either to the object or object-glass. Their new student's microscope on tripod stand, with chain adjustment, &c. A new form of sea-side pocket microscope, with folding tripod stand, &c., fitting into a small morocco case. A new telescope lamp, consisting of three tubes sliding in one another, the oil or paraffin vessel being contained in the inner tube. The height of the lamp is regulated to the greatest nicety by simply turning one tube in the other, the interior spiral-guides preventing all chance of slipping. Mr. Ernest Edwards kindly sent some very beautiful micro-photographs, as well as other admirable specimens of his art. Messrs. Weiss and Krohne and Sesemann sent surgical instruments; and Mr. Apps, ozone generators. A complete collection of Dr. Kirby's valuable miniature dispensaries was there. This convenient invention has already been described in our columns. Dr. Sedgwick contributed a large collection of microscopic slides, of urinary deposits and sublimates, and through the kindness of Mr. Barwell he was enabled to show a very ingenious instrument for measuring the rotation of the spine, and a series of photographs which attracted much notice, illustrating the progress of spinal curvature. Dr. Junker also sent his new inhaler.

The contributions made by Dr. Sedgwick excited unusual interest, and he was indefatigable in his endeavours to make the exhibition a success. To him, in point of fact, is due much of the credit attaching to the success that has been achieved.

The dinner took place in the evening. Eighty sat down to a very excellent entertainment provided by Messrs. Willis. Lord Campbell responded to the toast "The Houses of the Legislature," and Admiral Sir E. Belcher, K.C.B., to "The Army, Navy, and Volunteers." Dr. Davy proposed, in his own genial and graceful manner, the health of the President, who returned thanks in very feeling terms, and had long to wait for the subsidence of the hearty cheers which greeted him. Dr. Greenhalgh proposed "The Sister Universities," and regretted the absence of his old friend and teacher, that giant of medical lore, Dr. Copland, who had been kept away by a sudden attack of illness. Dr. Tilbury Fox responded. Sir W. Fergusson, Bart., who was most enthusiastically received, responded to the "Medical Corporations," proposed by Dr. Macintyre, of Oldham, expressing his hearty sympathy with, and warm regard for, the association. The Master of the Apothecaries' Society also returned thanks in an eloquent speech. Dr. Cholmeley proposed "The Learned Professions," to which the Rev. Dr. Bell and Mr. Sergeant Robinson responded. Dr. Ross proposed "Science, Literature, and Art." Mr. Glaisher, F.R.S., returned thanks, and took occasion to ask the aid of the Association in the work of combining medical observations with meteorological.

"The Press, Medical and General," was proposed by Dr. Rogers, and seconded by Mr. Clarke.

We most heartily congratulate the Council on the great success which has attended this their first anniversary session, and we augur great things for the Association.

HARVEIAN SOCIETY—Nov. 21st, 1867.

President, Dr. POLLOCK.

NEURALGIA: ITS PATHOLOGY AND TREATMENT,

Formed the subject of an elaborate paper read by Dr. Chapman. Referring to the various pathological views of the disease which have been from time to time propounded, he said that, while each offers a plausible explanation of some one of its forms, each alike fails to account for the numerous and different symptoms observable in different cases; and that only that hypothesis which recognises and explains every phenomenon of the malady by the application of one general principle can be accounted worthy of general acceptance. He expressed the opinion that two misconceptions prevailing to a considerable extent have retarded the acquisition of correct views concerning the pathology of neuralgia. These he stated to be (first), that in a great majority of cases there are no symptoms appreciable by the observer at the seat of pain; and (second) that there is such a thing as functional without structural disorder, or what has been called "Non-organic or immaterial neuralgia." Proceeding to explain his own views, he observed, at the outset, that all pain is expressive of centric disease, varying from the slightest temporary disorder to the most serious and irremediable morbid transformation, whether the pain has an obvious eccentric cause or not. Having enforced and illustrated this doctrine, he said that, according to his conception of the essential nature of the disease, every kind of neuralgia is represented by some one, or by a combination of two or more of the pathological conditions stated in the following synoptical form:—

DISEASE OF SENSORY NERVE-CENTRES.

(1.) Without appreciable reflex action in any direction, the pain which has no obvious cause being referred to some peripheral point seemingly healthy.

(2.) Having an obvious eccentric cause, but associated with pain reflected to some point of the periphery remote from that cause.

(3.) With reflex action through voluntary motor nerves, causing morbid phenomena of the voluntary muscular system.

(4.) With reflex action through the involuntary "negative-motor" (vaso-motor) nerves, causing spasms of blood-vessels and local anæmia.

(5.) With reflex action through the involuntary "positive motor" nerves, which effect nutrition and secretion, causing excessive activity of those processes.

The bulk of Dr. Chapman's paper consisted of an argumentative explanation, elucidated by reference to numerous and well established facts of the views formulated above. In the course of their exposition he accounted for the production of each symptom of the various forms of neuralgia. It is impossible within the compass of this necessarily brief report to give even an intelligible summary of his paper, which was itself so compact as scarcely to admit of an abstract other than that presented in the above synopsis. Of some parts of it, however, which seemed to be especially interesting, we will endeavour to give a brief outline. We refer to his explanation of excessive secretion, of the phenomena of inflammation, and of deposit of bone in quantities morbidly excessive, which occur in certain neuralgic cases, and all of which are comprised in section 5, as given above. Dr. Chapman asserted, contrary to the commonly accepted doctrine, that all glandular action is originated by nervous force from the cerebro-spinal axis. He supported his position by reference to the experiments of Bernard and other neuro-physiologists, as well as to his own observations. According to his theory, glands secrete excessively in neuralgic cases when exciting impressions are reflected on to them through what he calls the "positive motor" nerves which stimulate them to action, or when undue excitement at a sensory centre,

however caused, is extended to those nerve-cells related to nerves presiding over secretion. He also maintained, in accordance with many physiological and pathological facts, as well as the opinions of Bernard, Brown-Séquard, and others, that all organic structures are innervated by cerebro-spinal nerves in a manner similar to that which he alleged to obtain in respect to glands; and that, consequently, in the same way as glands are influenced by two sets of nerves, the one stimulating them, the other determining the diameter of their blood-vessels, so that, as he said, "the ultimate organic elements of every part of the bodily structure are poised, as it were, between two nervous forces, the one cerebro-spinal, named by me, for the sake of distinction, positive motor, because the continuance of vitality and of vital actions depends on its exercise; the other sympathetic, which I have called negative motor, because in proportion to the vigour of its actions, the supply of blood to any particular organ is diminished." By means of this doctrine he explained the origin and continuance of local inflammation, which he said was an expression of morbidly intense activity of the "positive motor nerves" related to the inflamed structures, and causing their excessive nutrition. When nerves of this class distributed to osseous tissue are intensely excited, the result is, morbidly excessive development of that tissue within the area of irritation. Applying these views, he showed not only how an excessive outpouring from glands, the lachrymal for instance, but how neuritis with surrounding swelling or inflammation, and those diseases of joints which Sir Benjamin Brodie called hysterical as well as that remarkable thickening of the skull observed after death in several cases of neuralgia, are the immediate results of the morbidly intense action of the nerves.

Throughout his paper Dr. Chapman insisted that in all cases of neuralgia, whatever may be the exciting cause of the disease, there is disorder of a nervous centre, either sympathetic, spinal, or cerebral, the disorder itself being of any grade of intensity—either so slight as to consist of a merely excessive afflux of blood, or so severe as to constitute what is ordinarily understood by the term organic disease.

Guided by these views, Dr. Chapman said that after removing any discoverable cause of neuralgia, the treatment of it should aim at correcting those morbid states of the nervous centres implicated, of which the disease is an expression. While commending the use of quinine and arsenic, which are known to exercise a specific influence in modifying the circulation of the blood in the nervous system, he was disposed to place his chief trust in the use of cold or heat applied along the spine, the success of which, he said, he had found "extremely encouraging, and, in some cases, truly astonishing." He concluded by describing his successful treatment of several cases by this method.

The reading of the paper was followed by an interesting discussion, in which several members of the Society took part.

Dr. Drysdale, after observing that he was known to be rather sceptically inclined, said that he must confess to having recently witnessed, in two cases, the efficacy of Dr. Chapman's therapeutical method. A few weeks ago, Dr. Chapman was present at the Farringdon Dispensary, while Dr. Drysdale was seeing his patients there. A man came in complaining of acute pain along one side, the cause of which could not be detected; it seemed to be a case of intercostal neuralgia. Dr. Chapman recommended the application of the spinal ice-bag along the dorsal spine twice a-day. Some time afterwards the man returned to the dispensary, looking so pleased, that Dr. Drysdale asked him what was giving him so much pleasure, when he replied that "the ice-bag had done him a world of good, it had taken away all his pain with wonderful quickness." The other case, Dr. Drysdale said, was one of uterine pain, with copious leucorrhœa. In this case Dr. Chapman suggested that a "lumbar" ice-bag should be applied along the lower dorsal, and the three or four upper lumbar spines twice a-day. At the end of about a week the patient returned, and stated that she was quite cured, the discharge, as well as the pain, having been completely stopped.

Dr. Fuller avowed himself a believer in spine-bags, the efficacy of which, he said, he had over and over again experienced in certain cases of menorrhagia and dysmenorrhœa. He invited Dr. Chapman to name the different kinds of cases in which he had found the spine-bags to be especially useful.

Dr. Cleveland and Dr. Camps criticised the theory of the nerve centres being always affected in neuralgia.

Correspondence.

THE WINE QUESTION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—We have just received your journal of the 27th inst., and cannot but express our astonishment at the tone adopted in the "note" appended to your "Report on Wine." We fail to appreciate the remark, that we had "ventured upon a reply" to your former notice. Surely the pages of a circular which has been identified with the wholesale trade in wine for twenty years past were appropriately devoted to protesting against the sweeping condemnations launched at one of its most important branches, and the practical knowledge of its conductors may, we hope, qualify them to *venture upon a reply*, even to so important an authority as your special reporter.

You demand a retractation; of what? "The writer," (in *Ridley's Circular*) say you, "starts by attributing the authorship of our Wine Report, No. 3, to Mr. Lytton." Our words were, "We are much mistaken if his pen did not furnish most of the details;" and on more carefully re-perusing the article in question, we see that by far the greater portion of it actually consists of quotations from that gentleman.

You go on to ask us for "arguments." Further argument upon the subject, so far as our pages are concerned, is superfluous; the issue of our Circular being restricted to members of the trade, who are generally well-informed as to the *facts*, and know that Mr. Lytton and his supporters' statements are merely theoretical, and to say the least, highly coloured.

We have never controverted the fact that the adulterations complained of are practised by some unprincipled individuals, and here "we feel it necessary to indulge" in a few short quotations from our published writings, to do ourselves justice.

Referring first to our Circular of 10th June last, in which Mr. Lytton's report was first noticed, and which has since called forth so great an amount of controversy, we read as follows:—"That there are plenty of those we may call the pettifogging portion of the trade, who, as they never possess or deal in any but the vilest rubbish that a low price can command, are compelled to use *baga* and other more odious means to put colour and substance into the low country wash in which alone their commerce consists, we do not want to be told; but it is a libel of the direst character to put into print such a false and sweeping assertion as that '*All* port wine hitherto exported for the English market is composed *almost quite as much of elderberries as of grapes.*'" Really, sir, the oftener this sentence passes under our notice the more we lose patience at its transparent absurdity, and the more we wonder any person can be found to give it a moment's credence.

In our letter to the *Daily News*, in answer to Mr. Lytton's second despatch, published in that journal on the 1st ult., we again distinctly stated, "Very, far too much adulteration does take place, not only at the making of the wine in the Alto Douro, but also to a lamentable extent in Villa Nova—yet to affirm that *all* port wine hitherto drank in England was hocussed with elderberry, is, we repeat, an iniquitous assertion," &c., &c.; and, in our last notice, to which we regret to find you take such exception, we wrote, "To suppose that any class of men, either professional or mercantile, is without guile, is to suppose a fallacy; but who would infer therefrom, that *no* member of either class had been found honest? or, who would assert that because *some* black sheep have been detected in a flock, *all* must be tainted?" A moment's reflection must serve to dissipate such a narrow-minded and prejudiced assertion.

As you appear to be in possession of the file of our Circular, you may see for yourself; and, indeed, you have been good enough to recognise the fact, that it has been our constant aim to expose and denounce anything approaching to fraud or adulteration; but we should be neglecting our duty if we allowed so foul a stigma to be fastened on the whole body of Oporto shippers, as, we must again repeat, the "iniquitous" assertion, "*All* port wine is composed quite as much of elderberries as of grapes."

We may here introduce a few words from Mr. Beckwith's Report to the British Commissioners at the Paris Exhibition, on port wine, which, says he, "when it has attained a ripe age in bottle, is, undeniably, whatever may be urged to the contrary, a noble and generous beverage, and so long as Englishmen are Englishmen, will never fail to find admirers." This

tribute is the more emphatic, as emanating from a gentleman who is a member of a firm exclusively interested in the sale of French and Spanish growths.

In conclusion, we submit that the mal-practices referred to in our Circular, and quoted by you, with regard to "unsound bottled port," "the concoction of spurious imitations with capillaire," &c., the sale of "Elbe sherry," (truly a most villanous compound), "the attempt to re-ship mixed wine from Oporto, as port," &c., &c., are matters altogether apart from Mr. Lytton's attack upon wine made in Portugal; and, although, calling for the sternest condemnation, must be considered on their own demerits.

From your expressed desire to observe the "strictest impartiality" in this discussion, we take it for granted you will find space for the insertion of this letter in your next issue; and regretting the unavoidable length to which it has extended, or, that you should have for a moment supposed we are actuated by any desire to "cast aspersions upon your good faith" in the matter.—We are, sir, your obedient servants,

London, 29th Nov., 1867. RIDLEY & Co.

INERT ACTION OF ERGOT DURING THE LATTER MONTHS OF PREGNANCY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Surely Dr. T. Telford is not serious in making the statement contained in his paper, published in this day's MEDICAL PRESS AND CIRCULAR, that after a series of experiments conducted for the purpose of establishing the efficacy of ergot in parturient women, that he invariably found, at seven and eight months, the toxic effect of that invaluable therapeutic agent *futile*, as it "neither induced labour nor exerted any deleterious effect on the child." After the result of such experiments, one can readily understand the latter, but with regard to the former, perhaps Dr. Telford will be good enough to inform more than myself, what preparation of ergot he employed, the method adopted for its administration, and the class of patient or nature of case selected, for such a series of experiments.

I regret having to trespass on your columns respecting a subject which is well-nigh worn thread-bare, only with different results to the conclusion arrived at by Dr. Telford, the propagation of which, in a public journal, carrying with it all the weight attached to anything emanating from such an institution as the Rotundo, would only, if unexplained, be productive of mischief.

In conclusion, I must acknowledge the interesting nature of Dr. Telford's paper, rendered to those unacquainted with the working of the douche, especially so, or to those who have not already adopted and benefitted by a satisfactorily established practice in the induction of premature labour.—I am, sir, your obedient servant, CORDYCEPS PURPUREA.

Hastings, Nov. 27.

Medical News.

The Social Science Association has accepted the invitation to hold its next year's Congress at Manchester.

Dr. Page, senior physician, and Mr. Tatum, senior surgeon, have resigned their offices at St. George's Hospital.

At a general Court of the Governors of Guy's Hospital, held on Thursday last, Mr. John Gurney Hoare, of Lombard-street, was unanimously elected President of the Hospital, in the place of the Right Hon. Sir Laurence Peel, who has resigned the office.

A sad accident occurred last Friday at the house of Dr. Oldham, of Guys. A young man cleaning the windows, through the giving way of the sash, was thrown on to the iron railings with such force as to break off two of the spikes. He was conveyed to St. Bartholomew's Hospital, but died on the way.

DUBLIN OBSTETRICAL SOCIETY.—Second Meeting, Saturday, 14th December. Communications: 1. A. H. M'Clintock—On the Spontaneous Elimination of Uterine Tumours. 2. L. Tate—On Chorea. 3. J. A. Byrne—On a Case of Cephalotripsy.

GLASGOW UNIVERSITY MEDICAL SOCIETY.—The opening meeting of this Society, for the session 1867-8, was held in the Practice of Physic Class-room, on the evening of Friday, the 8th ult. There was a large attendance of members, which fully testified to the increasing prosperity of the Society. In the absence of the president, Dr. H. Appleton, vice-president, occupied the chair. The first part of the business consisted in the reading of the Secretary and Treasurer's reports for the past year, which were unanimously approved of. The election of office-bearers for the ensuing year was then proceeded with. The following are the gentlemen elected:—*Honorary President*, Dr. J. Young, Professor of Natural History. *President*, Mr. William Maclachlan. *Vice-President*, Mr. George Hutcheson. *Secretary*, Mr. McIntyre. *Treasurer*, Mr. James Coats. *Committee*, Messrs. J. Aikman, J. Booth, J. C. Fletcher, A. Lang, J. McNaughton, J. Pitts, B.A.; and J. J. B. Taylor. A vote of thanks being awarded to the retiring office-bearers and chairman, the meeting was brought to a close.

UNIVERSITY OF EDINBURGH.—A third donation of £5000 has been made to the University of Edinburgh by Sir David Baxter, the head of the firm of Baxter, Brothers, and Co., Dundee. The Senatus—to whom the disposal of the gift is left—propose to found a Professorship of Engineering and the Mechanical Sciences, on condition of Government providing an annual sum of £200 a-year to the Professor, who would receive a similar sum from the endowment, making the salary £400, besides the class fees. There appears every prospect that Sir David's munificence will lead to the establishment of this long-desired addition to the University. The first competition for the Mackenzie Scholarship, of the annual value of £120, has just taken place, and the prize has been awarded to Mr. Thomas Stewart Omond, who shortly before had taken the degree of M.A. with double honours, and who has also just gained one of the Balliol exhibitions in the University of Oxford.

AN esteemed correspondent desires us to make known that warm clothing will be given away on the 1st of January next upon the following conditions:—"Each applicant must be a resident in Brighton proper, not in any of the adjacent districts; she must be respectable and industrious; and have the reputation of being a "good mother," that is, attentive to the moral and physical welfare of her children. A statement respecting the above particulars from a clergyman or a medical man in the applicant's district, must be enclosed before the 23rd of December inst., to "Sanitas," care of Mr. John Farncombe, 92, Eastern-road, Brighton. The number of living children in each case, and (if any) how many have died, should also be stated."

NOTICES TO CORRESPONDENTS.

DR. SINCLAIR'S letter in reply to the correspondence between himself and Dr. Kidd, reached us on Saturday last. It is perfectly impossible for us to publish it, or any other lengthy matter which reaches us at so late a date, but we shall have pleasure in inserting it in our next.

Dr. PIERSON, Scarborough.—We regret that pressure upon our space again compels us to postpone—with many others—your communication. It shall appear, with the additions made, in our next.

F. E.—Such practices are despicable; but unfortunately you have no redress.

Dr. CAREY, Taunton, is thanked for his note received on Friday last.

W. ARRAS, Esq., Carlisle.—We regret the non-delivery of your copies, and have forwarded duplicates.

L. S., Sheffield.—Enclosure received with thanks.

B., Brighton.—The notice in last week's Journal was intended for another subscriber.

M. A. VEALE, Coombe.—The numbers from October were forwarded to India as requested.

F. E. R.—The Journal shall be sent regularly to the address named. We are extremely obliged for the Subscriber you have gained for us in your town.

A CONSTANT READER.—Not without an order, if we understand the question as put. See notices to other correspondents, and if not clear, write to us more distinctly.

A POOR-LAW OFFICER.—We are not aware of any distinction made between married and unmarried women, in reference to their claims for midwifery attendance.

A.B. and M.R.C.S.—The fee would be allowed.

In reply to four different Correspondents, we remark that if a Poor-law Medical Officer attends a woman in labour, upon a proper order, he receives the fee directed by the Poor-law Board. He would not attend in ordinary circumstances without an order. If he did he would be subject to the tender mercies of the Guardians (which, like those of the wicked, are cruel). In all human probability he would be refused his fee—even if he had saved a valuable life.

M.D., St. And.—Send your name to the Secretary.—See Report.

Mr. LAMBERT will find most of the information he requires in our "Students Number."

Mr. RUDING.—The address of the gentleman named is Holyrood-crescent, Glasgow.

ERRATUM.—In the report of Dr. Geoghegan's "Cases of Onychia," in Note 2, for "centre of cutis" read "entire thickness of cutis."

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LIFE DEPARTMENT.

THE Directors call the attention of the Public to the new Table of Life Rates, in which a considerable reduction has been made, particularly in the younger lives for whole term, affording to the Assured the utmost advantage consistent with security.

A Quinquennial, instead of a Septennial, division of Bonus has been adopted; the first Bonus averaged Two per Cent. per Annum on the Sum Insured, and the result of the Actuary's Investigation for the Five Years ended 31st December, 1862, is still more favourable, as shown by the following Example :—

Date of Policy.	Age.	Amount Insured.	Annual Premium.	Bonus Added Dec. 1857.	Bonus Added Dec. 1862.	Total.
		£	£ s. d.	£	£	£
1851	58	500	32 5 0	86	96	182
1852	50	3000	136 2 6	407	416	823
1853	40	1000	32 18 4	97	107	204
1854	55	600	32 11 0	50	90	140
1855	57	500	29 9 2	29	77	106

At the option of the Assured the Bonus may be commuted for a reduction in the Annual Premium, or a payment in money.

The Assured are allowed, in time of peace, to pass from one port in Europe to another, in steam or other decked vessels; and residence in other parts of the World allowed on very moderate terms.

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SURGICAL SOCIETY OF IRELAND.

THE Meetings of the Society for the Session 1867-68 will take place at the Royal College of Surgeons, on the undermentioned Evenings, at half-past Eight o'Clock precisely :—

1868—Friday, 3rd January.
,, Friday, 17th January.
,, Friday, 31st January.
,, Friday, 14th February.
,, Friday, 28th February.
,, Friday, 13th March.
,, Friday, 27th March.
,, Friday, 17th April.

Members who intend to read Papers or make communications before the Society are requested to inform the Secretaries, in writing, of their intention a few days previously.

Discussion on any communication is not permitted unless the writer calls for it or desires it.

When the Contributor of a Paper wishes that the Secretaries should read it to the Society, he will please forward it to them some days before the Meeting.

Except under special circumstances, no Member can be permitted to occupy the Meeting in reading a Paper, or making an extempore Communication, for a longer period than half an hour; and the Society will not be held responsible for any opinions advocated in the communications. Neither can a Member be allowed to speak for more than once, or for more than ten minutes, during a debate relative to a communication.

The communications become the property of the Society, for publication in its proceedings.

The exhibition of recent morbid specimens is allowed precedence of all other communications; but a specimen cannot be considered a recent one unless it has been removed from the body within the fortnight immediately antecedent to the Meeting. The exhibitors of specimens are allowed ten minutes for the description of each specimen, the expiration of which time is announced by one of the Secretaries ringing a bell.

Each Member of the Society, being a Subscriber of 5s. to the Refreshment Fund, is entitled to as many tickets for visitors as he may require, at 6d. each.

Naval and Military Surgeons are admitted as Honorary Members of the Society on sending their names to the Secretaries.

None but Physicians or Surgeons are admitted to the Meetings of the Society.

CHARLES BENSON, M.D., } *Honorary*
B. WILLS RICHARDSON, F.R.C.S.I., } *Secretaries.*

DISEASES OF THE EYE AND EAR.

DR. ARCHIBALD H. JACOB will Deliver, during the present Session, a full Course of Lectures on the Diseases of the Eye and Ear, and the Operations necessary for their Treatment, at the City of Dublin Hospital.

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Address.

SURGICAL SOCIETY OF IRELAND.

OPENING ADDRESS OF SESSION 1867-68,

DELIVERED IN THE

ALBERT HALL, ROYAL COLLEGE OF SURGEONS,

DECEMBER 6, 1867.

By ROBERT ADAMS, M.D., F.R.C.S.I.,

PRESIDENT OF THE COLLEGE.

As President of the Royal College of Surgeons, I have the honour and privilege this evening of inaugurating, by a brief address, this winter session of the Surgical Society of Ireland.

And in the first place allow me to congratulate the members on the success which has hitherto attended their efforts to render the society useful.

When I consider the number of hospitals which are maintained in Dublin, and the manner these institutions are worked, both for the interest of science and humanity —the great field they open for education, the zeal and emulation of their medical and surgical officers, and their willingness at all times to communicate practical information—when I consider all this, I feel I can confidently reckon upon the attendance of these eminent men at the stated meetings to be held during the winter in this hall, where shall be discussed various questions which have for their object the advancement of medicine and surgery. Under such circumstances, I cannot despair, but on the contrary must feel sanguine in the hope that this winter session of this society will be as productive of good, and give as much evidence of progress as any one of these which has preceded it.

Such societies, let me observe, are useful and necessary, because men, however great their learning, are apt to become indolent and indifferent to improvement, for want of associating with others of similar talents and acquirements. Having without such reunions few opportunities of communicating their ideas, they are not very solicitous to collect or arrange them; but when a number of such men have opportunities of meeting at stated periods, and of discussing useful practical subjects, thoughts elicit thoughts—every hint is turned to advantage, and a spirit of emulation glows in every breast. Their *united* judgments correct and improve each other, and from comparing the different observations of various persons general truths result, which *individual* investigation should never arrive at.

Whatever class we belong to, whether old or young, let each of us recollect that he owes a duty to this society. Those who have extensive opportunities, are called upon to exert themselves to collect and arrange the facts which pass under their observation; it is for them to elucidate truth by truth, and to display the connection of facts with the principles upon which they rest, and having done so, to lay them unreservedly before the world of science; but although it falls to the lot of but few to possess a field of observation wide enough to arrive safely at important conclusions, still there is scarcely one, even the youngest, that cannot contribute some facts to the common stock. "Science, as Chevalier remarks, welcomes the unsophisticated narrator of facts from whatever quarter it come, and the wisest amongst us cannot tell by whom the most important of these shall be first observed. Truth, he adds, was once by a revered friend of his, compared to a ball of crystal which fell from heaven, and was dashed into a thousand fragments, which were scattered all over the earth. No individual, he would say, has possession of the whole; often you will find a useful portion of it where you least expect it—only be sure you know the characters of the true gem—and are able to distinguish it from counterfeits, and then you need not despair of discovering some fragment at least, which fitly adjusted, may not only enrich your own mind, but also prove useful to others."

The council of this society has made good rules and ordinances, which no doubt have contributed to the continued success of the meetings, and the disinterested attention of the secretaries has been most praiseworthy.

The council of the College, too, has always liberally supplied the means of publishing to the world faithful reports of the meetings. No member of this society, whether he be senior or junior, need be afraid to submit his doctrines or opinions to the examination of a learned and liberal body, engaged in the investigation of truth, and in the pursuit of useful medical and surgical knowledge.

If any individual, in this hall, has arrived at the knowledge of any useful discovery, let him here unreservedly lay it before his brethren, and the discovery shall even be associated with his name, and be published not only through these countries and the continent, but also in distant quarters of the globe. Any good that publicity of it can convey to suffering humanity will be quickly done, and any claim to merit due to the originator of any good and practical discovery, shall be thus infallibly registered, and made known to the world; in a word, let him listen to the advice:—"Cast thy bread on the waters, for thou shall find it after many days."

Let me take advantage, gentlemen, of this opportunity, when I see around me many experienced medical men, of stating that, in my humble opinion, the attendance of practical and experienced men in a debating society such as ours is absolutely necessary—to be ready to check the natural ardour of youth, and to correct the too rapid deductions of the inexperienced, who are ever prone to generalise too much from a limited collection of facts. It is to be earnestly hoped that the senior members of our society may attend the meetings. By their doing so, opportunities may be afforded to them, at a small expense of time and trouble, of communicating to each other and to the junior members and public, the valuable results of their own experience, which they may never again have either time or inclination otherwise to communicate to the profession. I feel certain that their oral communications shall always be listened to with respect and attention from the members and visitors who come here glad to acquire that species of practical information which is too often fruitlessly sought for in books.

In reflecting on the advantages such a society as this confers on the profession and the public, I may mention that any remarkable case which is presented to it, by any of its members, is first subjected to a scrutinizing ordeal before the society, previously to its being sent forth to the world. If the case be an hospital one, there are numerous witnesses at our meetings (as it were in court) ready to give direct evidence in the case, and even to suffer a *vivâ voce* cross-examination if deemed necessary. How different must be the influence on the public mind of a case so supported and brought forward; and how superior must this influence be over that produced by the relation of a similar case, when it is reported on the single authority of any individual, however trustworthy.

Let me not, however, be understood, by any means, to assert that any case is at all likely ever to be brought forward in our weekly periodicals or medical journals, which the author himself may not believe to be in every respect true, but I am of opinion the relation of a case will never have the *influence* on the public mind that is to be desired, except it be accompanied with every evidence that can be afforded —"Non meus hic sermo." The late Sir Philip Crampton, three times the President of this College, and consequently three times President of this Society, has upon this subject thus expressed himself many years ago in the second volume of the *Dublin Medical Journal*, 1833:

"Let no case be reported on the single authority of any individual, however trustworthy. Let every possible security be given against error; for want of attention to this, *surgical cases* in particular, however faithfully recorded, are deprived of the greater part of their value."

The meetings of this Society afford to authors of essays and reporters of cases, and of surgical operations, every facility of having their statements subjected to a fair and honourable criticism ; and, after having gone through such an ordeal, every such case, when published, must bear with it an influence which, ever so true in itself, it never could otherwise have had.

Besides oral testimony, we sometimes have had here the patients themselves, who have been the subjects of successful operations, and we sometimes have had cases verified by drawings or casts; and here permit me to dwell for a moment on the value which, in my opinion, is to be attached to faithful photographs, drawings, and casts. A short time ago we had the pleasure of receiving as visitors in this city some American army surgeons, who had been professionally in attendance on the wounded in the late American war. These able surgeons who had belonged to the Confederate army, related to us several cases of wounded soldiers who had received gun-shot injuries, such, for example, as compound fractures of the thigh, who, nevertheless, had perfectly recovered.

These surgeons did not depend for the truth of their cases, as represented by themselves, on their own unsupported statements, but they brought over splendid photographs as large as life, showing the nature of the severe injuries received, as well as photographs demonstrating the cicatrization of the wounds, verifying the complete recovery of the wounded soldiers. I am happy to say that the College of Surgeons have received an intimation from America that a set of these large photographs are in course just now of crossing the Atlantic as a present to this College. I will not detain you too long by at all entering on the subject as to the value of plaster or wax casts as true witnesses of surgical disease and accidents, of the successful result of surgical operations; but I am authorized in saying that the Council of the Society value such *witnesses* as faithful drawings and casts as accompaniments of statements and reports of cases where such witnesses can be adduced. For my part I have all my life urged upon my hospital pupils the importance of their becoming acquainted with the art of taking of casts, and I have myself felt the profit of having given this advice by the acquisition of valuable casts of rare injuries forwarded to me by former pupils, such as dislocations of the lower jaw, dislocations of the knee, &c. By looking on such casts we became familiarized with the external signs, symptoms, and physiognomy, as it were, of certain injuries—such as dislocations ; by such means we are afforded opportunities of comparing with each other the external signs of the same species of dislocation in different subjects, these casts thus become valuable to students (and we are students all our lives) ; they help much the lecturer in his demonstrations of accidents, which he would otherwise find most difficult to describe, but I will not *now* dwell upon this subject, but will (*D.V.*), with the consent of the council of the society, return upon this subject before the session has drawn its labours to a conclusion, by adducing some cases of rare accidents, &c., illustrated by casts and drawings.

In conclusion, gentlemen, I have only to say, that if any further reasonings were necessary to prove the practical utility of such assemblies, I have only to say, that societies for the advancement of medical and surgical knowledge have always prevailed, and at the present moment are to be found in active operation in every large city. See how numerous are they in London, and how assiduously frequented by many members, and among them some of the greatest celebrities of that Metropolis.

In June, 1865, I may mention that I chanced to be in Paris, and had the pleasure of being present at one of the re-unions of the Surgical Society of that city, a society quite analogous to our own, and could not but admire the zeal which induced such experienced and distinguished men as Civiale and Velpeau (whom I met there) to give up, for a time, their ordinary and their urgent avocations, to lend their presence, influence, and example, to promote the objects of the Surgical Society of Paris.

Alas, although the time has been but short since June, 1865, these two celebrated surgeons are now no more; so long, however, as the annals of surgery last, the names of both of these distinguished men shall be recorded as the promoters of science and the benefactors of humanity.

Among that assembly there were, no doubt, other eminent men, whose names did not reach my ear. Let me, however, add the name of Giraldès, the interpreter *par excellence* among the French surgeons of English Medico-Chirurgical Literature ; nor should I omit to mention that among those learned surgeons who kindly greeted me on the occasion in question, was the celebrated ex-surgeon of the Hôpital de Lariboisière, Chassignac, the inventor of the ecraseur.

Thanking you, gentlemen, for your patience, I shall here conclude by saying, that the seal of the diploma of the Surgical Society of Paris has impressed on it a sentiment with which our Surgical Society of Ireland entirely concurs, and the spirit of which the whole of this address is intended to inculcate—

"Verité dans la science, moralité dans l'art."

words which, as my pronunciation of the language may be indistinct, I will take the liberty of translating—

"Truth in the science, conscientiousness in the practice of the Profession."

Lecture.

CLINICAL LECTURE ON LIPOMA TESTIS.

By J. MORGAN, L.R.C.S.I.,

SURGEON TO MERCER'S HOSPITAL PROFESSOR OF SURGICAL AND DESCRIPTIVE ANATOMY.

GENTLEMEN,—The case of Anderson, on whom I am about to operate this morning, is one of considerable interest, as he presents you with a specimen of a disease not very frequently to be seen in so well-marked a condition, namely, lipoma of the testis in an advanced stage, and aggravated by neglect and irregular living. The history is thus given by the patient himself :—

About two years since, when coming down a ladder, he struck the scrotum severely against its side. The right testis became acutely inflamed for the time, and then remained in a chronic subacute inflammatory state. About seven months since the skin became discoloured, gradually thinned, and gave way, allowing of some discharge, thus in fact seventeen months elapsed from the receipt of the injury till the giving way of the surface. From this date a fungus growth gradually protruded, which was, perhaps, more inconvenient than actually painful. He applied to this growth red precipitate pretty frequently, using each time about what could be raised on a fourpenny piece. He thinks the rapidity was diminished, but the increase of the growth steadily continued. During all this time he was an irregular liver, drank freely, and continued working as a painter. He never had any secondary eruption or other syphilitic affection. *On examination now* you find he is in a cachectic condition, has the characteristic blue line on the gums caused by lead poisoning. He has never had wrist-drop, but suffered two or three attacks of colic. The testicular affection has lately troubled him most, and he has been rather free in the application of the escharotic. You perceive that the mass represents almost four-fifths of the right testis. You can feel the cord leading downwards to it ; the colour is yellowish, with a mixture of red, irregular patches, the surface more or less granulating, and there is a superficial slough, the result of the escharotic applied. Adhesions have firmly taken place around, and the tumour is grasped by a ring of condensed skin. You are surprised to see the sang froid with which he handles the diseased part, which is comparatively *painless*, for the absence of local pain is remarkable in this affection.

He has a cicatrix on the prepuce, but no eruption or periosteal affection, and there is no stricture or irritation of the urinary organs; there is, however, a very curious state of

the other testis, it, you find, is hardly one-third of the normal size; it is very sensitive, and to the touch the body of the testis feels soft and flaccid, while the epididymis is nearly of natural size and consistence, showing that the efferent, or we might call it mechanical, part is intact, while the secreting and more essential, is suffering and perishing. These remarks you verify both by examination of the patient, and of the coloured cast of the parts. Keeping this case before you, I propose to give you a brief outline of the general history of the disease before I actually operate, and put the patient on a special line of treatment.

The term lipoma is unfortunate, as it is applied more to that form of fatty tumour, which is apt to occur about the shoulder, neck, and trunk, feeling soft and lobulated, and sometimes attaining several pounds weight, 40 and 70 lbs. have been removed. I assisted some time since in the removal of one from between the shoulders of a pedunculated shape, composed of pure fat, and weighing upwards of nine pounds; but sometimes these tumours are numerous and small, over 200 have been counted on the body, varying in size from a pea to a marble, formed of fat cells with a crystalline nucleus of inorganic acid. The term is additionally unfortunate, as it is also applied to that curious affection of the nose, of which you see a few specimens about town, and which is so well-figured in several of the class-books, where tumours lobulated in appearance, but growing from common origins, occur on the nose of red colour, and active capillary circulation, where the skin and sebaceous follicles suffer hypertrophy, the latter sometimes being converted into cysts; these tumours occasionally grow to such a size as to interfere with vision, breathing, or even eating. However, Mr. Lawrence, who in 1808 described this affection of the testis, gave it the name of lipoma, which, together with his own, has been since associated with the disease. It is also termed benign fungus of testis, or granular swelling of testis, or hernia testis, as a certain similarity exists between this affection and hernia cerebri, both have a fibrous, serous, and vascular coat, and both have a constant tendency to protrude, although there is no constant counterpressure; but when we examine the formation of the testicular protrusion, we find that the tunica albuginea or fibrous coat which invests and supports the testicular structure, is, with the mediastum, more or less invested, which in the hernia cerebri does not happen the dura mater, as it is not similarly arranged with regard to contained structure.

This fungus, the result of chronic orchitis, was for some considerable time looked on as malignant, and extirpated accordingly—on this account, chiefly, that Mr. Lawrence drew attention to the subject, and gave a more accurate description of the disease; but whatever difficulty there might be in the early or developing stage of malignant disease, or encephaloid cancer, in distinguishing it from the chronic orchitis which precedes benign fungous, there can be very little once the fungous man protrudes.

The following are the distinctive marks:—

IN ENCEPHALOID DISEASE.	IN LIPOMA.
The growth is a bleeding fungus, soft, and varying in consistence, interspersed with dark-coloured patches of coagula. The diseased mass is sometimes of great size, from 1 to 9 lbs. weight have been seen. Pressure does not cause peculiar pain.	The growth is yellowish. The surface is granular. There is no bleeding. The size is moderate. Pressure causes the peculiar testicular pain.

You therefore would not proceed to extirpate a lipoma; on the contrary, as the tubular structure is comparatively perfect, endeavour to save it. But it is not so much from encephaloid as from other affections of the testis that you are called on to distinguish. There is the scrofulous and the syphilitic disease to be borne also in mind. In order to make the contrasts plain I may tabulate them thus:—

SCROFULOUS.	CHRONIC ORCHITIS.
A little pain generally at epididymis, which is enlarged and slightly tender on pressure. The enlargement commenced at globus major, on the upper part of the epididymis, or at the rete testis, if in the testis itself.	Testis is tender, with slight enlargement, and possibly, but not very frequently, enlargement of the globus minor, or lower part of epididymis, both structures becoming involved, and often fluid in tunica vaginalis, hence termed hydrosarcocele.
Pain is slight, and even less than in chronic orchitis.	*Pain* is slight, the patient sometimes not absolutely knowing of the disease for a time, chiefly inconvenienced by the weight.
Growth very slow, and at times stationary.	*Growth* slow, sometimes very much so.
Figure irregular, chiefly influenced by epididymis. There may be small effusions into the tunica vaginalis, which obscure the diagnosis.	*Figure* oval, with flattened sides; smooth, inelastic, and uniform.
Progress.—A seed-like deposit of tubercular matter takes place, sometimes like beads on a string. These afterwards become the ordinary cheesy matter, and soften. The skin gradually thins, becomes blueish, and gives way, allowing thin caseous pus to escape. This leads to the formation of sinuses, and these coalescing and inter-communicating form fistulæ, which remain for a longer or shorter period, giving exit to the caseous matter. As a rule there is no fungus growth or protrusion of the ducts, for they have been spoiled by the earlier or depositing stage of the disease. This condition may implicate the entire testis, where, of course, it will be useless, as its secreting power is destroyed, and the question of removal will arise.	*Progress.*—A peculiar yellow matter (intertubular) is pasted around the tubes of the testis, as well as a deposit (intratubular) within the tubes themselves; this deposit may form either in several spots in the testis or in one isolated depôt; this excites ulceration by its pressure, the dense and unyielding tunica albuginea gradually gives way; adhesions form between it and the tunica vaginalis; the skin becomes adherent; this giving way, allows the fungus surface to extrude, small at first, but the inter-tubular substance increasing, it forces out, so to speak, the tubular and its contained material, thus, contrary to the strumous disease, the secreting structure of the testis is more or less preserved, as the pressure of the dense tunica albuginea is no longer exercised, and the circulation of the inter-tubular vessels, and of the pia mater testis, allowed to go on. The tunica albuginea is everted absolutely in the mass that projects from
Morbid Changes.—The tubercular matter is deposited,	the retracted scrotum, which constricts it, the skin itself becoming a hard ulcerated ring around.
	Morbid Changes.—A yellow homogenous deposit takes place

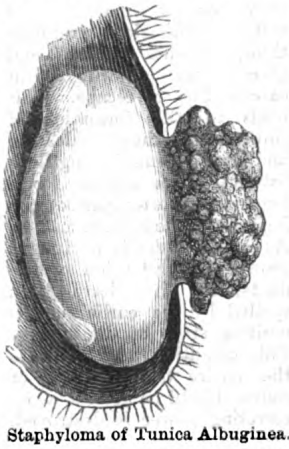
Section of Lipoma.

in the first instance, in the ducts or tubes, these become distended with the altered contents, till they become globular actually, in some cases—these dilatations generally give way, and the matter is exuded into the surrounding tissues. There is no formation of inter-tubular lymph or limiting material, though occasionally after the extravasation has occurred an exudation takes place from the blood-vessels, which infiltrates the adjacent parts.

between the tubes sometimes called "the yellow tubercle of the testis." It is inter-tubular and infiltrated, as it were, between the tubes. This is a fibrillated lymph, with a slight mixture of corpuscular matter; it is non-vascular; is primary in its appearance; besides this, there is a secondary intra-tubular deposit, corpuscular in structure. This is of a yellow colour, and contains a large quantity of corpuscles like tubercular matter. *No* dilatation of the tubes takes place, but, on the contrary, the walls are thickened, and the inter-tubular constituent, if of long existence, so compresses the tubes, that they suffer a fibrous degeneration.

Here, as Mr. Curling suggests, the corpuscular or intrabular matter may be depending on the local and not constitutional cachexia.

There is a rare form of fungus, which occurs from the very surface of the tunica albuginea, where an ulcerated opening occurs in the scrotum, and the tunica albuginea forms a staphyloma, as it were, though this, becomes granular on the surface, in fact, a fungus ulceration of the tunica albuginea. On its surface this form has been described by Mr. Paget and M. Jarjavey, and the woodcut gives an illustration of the relation of the parts concerned.



Staphyloma of Tunica Albuginea.

Here, again, the distinction in the after stage of the disease is simple enough, and explains the fact that though the protruding mass may be of great extent, yet, owing to the conditions which existed to preserve the tubular structure, when the fungus is repressed into the scrotum, and subjected to treatment, the function becomes re-established, as has been frequently ascertained beyond any doubt.

The other affection possibly leading to benign fungus will be syphilitic inflammation, known as syphilitic sarcocele *occurring as a late secondary or tertiary* symptom. Here there is also little pain, and more a sensation of weight, but undergoing usually a nocturnal exacerbation.

The *seat* of the disease is in the gland itself, but Mr. Hamilton has described a form occurring in the epididymis of a tubercular character, hard and nodulated to the feel, and apt to degenerate. There is some fluid in the tunica vaginalis. It occasionally suppurates, more usually yields to treatment, but is apt to recur, *sometimes appears to form benign fungus*, of which Mr. Fleming has recorded cases in children, but about which there might be a doubt as to the constitutional syphilitic condition—sometimes the testis undergoes fibroid degeneration.

In acute orchitis suppuration occasionally forms a localised abscess, which after sometime concretes and resembles tubercular matter, and may slowly make its way to the surface. Abscess in the connective tissue of the epididymis generally points at the most depending part of the scrotum, but there is no fungus protrusion. My friend, Dr. James Little, tells me he has observed the very frequent affection amongst the Hindoos of the formation of a central abscess, which is characterised by symptoms altogether subacute in their evidence, there is some tension, weight, and throbbing pain, with considerable constitutional disturbance, the gland is felt to be enlarged, hard, and tender. Meeting these cases very frequently the native practitioners are able to determine with confidence the presence of matter when no fluctuation is appreciable by a surgeon, who has not been in the habit of seeing them. The native doctors relieve these by plunging a trochar and canula boldly into the centre, which gives exit to a small quantity of pus. Here fungus protrusion does not occur, though the very substance of the gland is entered, as the necessary morbid conditions do not exist.

Having thus given an outline of the causes and course of the disease, I would say a few words as to treatment before practically illustrating it to you in the case before us this morning.

The method formerly in practice was that of constration, as the disease was looked on as malignant; however, Mr. Lawrence and Sir H. Cooper pactised a method of slicing or cutting off the diseased mass. Sir H. Cooper says, "leaving the testis and epididymis uninjured;" but after the foregoing explanation of the nature of the fungus, it is plain much of the tubular structure of the testis is removed, though from its anatomical arrangements in packets, this excision of part may not destroy the whole. The same objection applies to ligature as to the use of the knife for slicing off the fungus.

Sir B. Brodie, who particularly described the disease, recommended the use of escharotics by sprinkling over the surface with red precipitate, and also mercurializing the patient carefully and fully.

Mr. Syme, in 1845, recommended a method which obviated objections that might be urged against either of these, the slicing off, or the slower process of using escharotics; he advises cutting round the constricted neck of the fungus, and making an incision above and below, to enlarge and allow of two flaps being raised, with which he covers over it, and retaining in their place by suitable means.

Mr. Curling advises the persistent use of a ten grain solution of nitrate of silver compresses, and plaster strips, rest, and the administration of four or five grains of blue-pill night and morning.

The patient was then operated upon, two flaps being raised, and the protruding fungus covered over by them, except one portion which was sloughy from the application of the escharotic; to this point a compress was applied, and retained by straps of plaster, the scrotum supported by a crutch pad.

Four grains of blue pill, and four of quinine administered every second night, and generous diet ordered.

Original Communications.

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

XI.—ON LITHOTOMY AND LITHOTRITY.

I SHALL hope to have an opportunity of devoting one paper to certain circumstances relating to operations in general, but at present I propose only to offer a few remarks on Lithotomy and Lithotrity. The following occurrences appeared to me to be very significant in the relation they bear to these operations, and I therefore trust I may be excused for recording them.

A medical man, who brought me a patient from the country, amongst other questions, asked me my opinion of

the two proceedings. I stated it to him, and which, in fact, was not essentially different from that which I ventured to predict as long ago as when lithotrity was first introduced into this country. Substantially, it was nothing more than that each had its advantages in certain cases, which I, as mere matter of opinion, went on to state. "Well," he replied, "yesterday I saw Mr. ———, a surgeon, who was in great repute as an operator, and he thinks that lithotrity is one of the most important improvements in surgery, and expects that it will in time supersede the necessity of lithotomy altogether, adding that he doubted whether he himself would lithotomize any more."

About two years after this the same medical man again came to town, and in the interview with me, reminded me of what I had told him, adding, that he had now again seen the surgeon with whom he had the former conversation, but found his opinion now entirely changed, for he says, hardly anything will induce him to perform lithotrity any more.

This is too commonly the result of allowing the merit of this or that mode of proceeding to be determined by the imperfect and oscillating convictions of individual experience.

I have had little personal experience on the subject of lithotrity, and, therefore, although I have not been an inattentive observer of the practice or opinions of others, I desire to speak with some diffidence in stating my impressions, when I say that from all the evidence I have gathered on the subject, I fear that the advantages of lithotrity have been somewhat exaggerated, and that, in many cases, it has been allowed to be substituted for an operation which, under reasonably favourable auspices, has been one of the most successful of all (of what are understood by "capital operations") these proceedings in surgery. In persons advanced in years, the necessary (and often) repeated manipulations, by the reactionary disturbances sometimes induced, are very serious considerations. There was some thing emphatically characteristic of the mode in which irritation and disorders of the bladder destroy in advancing life—in Abernethy's expression, when he said they "teaze a man to death." In advancing life, continued irritation, whether of mind or body, will destroy life just as certainly as acute suffering; the exhausted lamp gives no sign but repeated flickering, and a man will die on a day succeeding to one in which he has been, or appeared, better than usual. Then, in lithotrity, occasionally there is great suffering from detritus, in cases where the bladder has imperfect power of emptying its contents. I recollect one case exactly similar to one in which I had refused to perform lithotrity, wherein the result was very lamentable. The patient was an elderly man, about seventy. The operation was performed by a surgeon, whom, I have reason to believe, was a skilful lithotritist. I met the patient a short time after the operation, and he told me that his sufferings were constant, and that though they varied in intensity, he scarcely ever knew what it was to have one moment's complete ease. He could not get rid of the detritus, and the attempts to relieve him appeared to have been so far unsuccessful. I need scarcely add that he soon sunk exhausted by this state of things. I will not add more on a subject which I have seen no reliable statistics, on which there still exists much difference of opinion, and on which my own experience has been limited.

Lithotomy is, perhaps, one of the most successful operations in surgery, so far as the circumstances under the control of the surgeon is concerned. We require accurate statistics before we can adjust the successes of lithotomy in relation to lithotrity or operations in general. We require a fuller account of unsuccessful cases, and a more particular statement of the details.

If a patient, when first presented to the surgeon, is already in a condition well-nigh exhausted by suffering, if he has no reasonable time or opportunity of preparing his patient, or having this, neglects to avail himself of it; if there be already disease of the kidney or bladder, it would be absurd to place such a case as an example of failure from the danger of the operation. Any operation, under such circumstances, can hardly fail to exhaust the patient. I was once myself compelled to perform lithotomy in a case so hopeless, that I certainly should have declined doing it, had it not been reasonably urged in consultation, desperate as the case appeared, we were not justified in withholding from the patient the chance of recovery.

It is quite clear that in determining the danger of an operation, we must detach all such interferences with the success of it as are plainly avoidable. Nobody can reflect on the success which attended even the barbarous proceeding of Frere Jacques, without feeling that under the more definite and improved proceedings of modern surgery, many fatal cases may be attributable to other causes than the necessary proceedings of the operation.

The "I'ai tiré la pierre, Dieu la guerira," of Frere Jacques, is not without some significance, for although we are not obliged to adopt the latter part of the phrase in the sense that Frere Jacques did, that is, without endeavouring so to apply the "laws" as may best assist nature, yet there is no doubt that many of Frere Jacques' patients escaped the danger, not always absent, of officious, or questionable after-treatment.

The causes of failure, then, which apply to operations in general are—1st. That the patient is not sufficiently prepared so as to have attained that condition, or the greatest practicable approximation thereto, which is so material to success; 2nd. Some patients are presented to the surgeon so late, that their forces are well-nigh exhausted by continued contest with suffering, and yet with a complaint that does not justify him to allow his patient to die, without some attempt to save him. Again, occasionally, a patient will rise, buoyant as it were, when the immediate cause of suffering and exertion is removed. In the case I have just referred to, the patient rallied so much on the removal of the calculus, that although he ultimately sank again, I was, for a time, not altogether without hope that he might recover.

No doubt there are dangers, and occasionally complications, which are inseparable from the operation. They consist chiefly, I think, of stones adherent to the bladder, or in cysts, or some other peculiarity of position, so that they cannot be got at, or *readily* extracted. Enlarged prostate is a very undesirable complication, and all these circumstances may occur in the same case. Complications of this kind, unless foreseen and provided for, occasion delay, long and *repeated* manipulations, and such other inconveniences, as experienced surgeons can hardly fail to have witnessed, especially where any or all possible provision for them have not been foreseen.

I may have to say something on the preparation of patients generally by and bye. One case in illustration of what may be done by it I will mention. Mr. Jordan wished me to see a patient with stone, who was then labouring under severe convulsions. I found a fine boy, about twelve years of age, in a most alarming condition, and more than once whilst we were attending to him, we feared he would not recover. He had had at times many severe and threatening attacks, and Mr. Jordan, attributing his convulsions to the stone, was anxious that the operation should be performed as soon as possible after his recovery from the convulsion. I thought differently. I said convulsions are no necessary symptoms of stone; they must depend on some condition of the body, independent of the calculus, or on which the calculus may probably enough be exerting an unusual influence, and that that condition might exert just as unfavourable an influence on the result of the operation. I accordingly, with Mr. Jordan's assistance, set about attending to the boy's health, and that became so much improved and his sufferings so much relieved, that when I said I would now consent to perform the operation, Mr. Jordan had so altered his view that he suggested further delay, as he expected further improve-

ments in the boy's condition. I very willingly agreed to this. Mr. Jordan's expectations were justified by the result; the fits quite ceased, and he was in a very quiet condition. I now performed the operation, and the boy recovered without a single unfavourable symptom. I think the case remarkable, as showing what may be done—first, because, when the operation was over, the mother, to whom I immediately communicated it, said, "I am so glad, sir, that you did not use chloroform, for he has a sister now in an asylum, in whom the insanity has been attributed by physicians to the use of chloroform." The material fact, in my view, is what I learned only recently, that there is insanity in the family.

No doubt there are failures which in one sense or other result from the operation, but if we detach from these, imperfect preparation, and certain errors in the performance, I think a collection of operations would furnish a result showing a greater number of successes than from any other of what are understood by capital operations.

With regard to the difficulties sometimes inseparable from the operation, at others arising from avoidable causes, I can only speak of what I have seen. Enlargement of the prostate gland is a very undesirable complication. It places the bladder farther from the perineum, and renders the operation more difficult. But the chief difficulty which I have seen, is that which it affords to the ready seizure and extraction of the calculus. The forceps generally used are not very well constructed. In the first place, they are, as the rule, very unnecessarily large, occupy in fact more room than is at all necessary, and, I believe, from their size only, often occasion the necessity of the very force which they are made strong, to overcome. The forceps for extracting the stone, when the prostate is enlarged, should have the blades long and the joint in *the middle.* When the joint is, as is often the case, too near the end, it becomes buried in the wound, and this impedes the opening of the blades. On one occasion on which I went to see an operation, where the prostate was enlarged, I put a pair of large forceps in my pocket thus constructed, and when I found the difficulty which I had anticipated occurred, I handed them to the operator, who then extracted the stone with very little delay or difficulty.

One of the most important points in lithotomy is so obvious, that I should not venture to insist on anything so elementary, if I had not known the neglect of it to have been the real source of the most lamentable occurrences I have ever seen in lithotomy. The point to which I refer is, the importance of the surgeon never withdrawing the staff until he has placed his finger on the stone.

If anything has gone wrong in the operation, any mistake as to his incision, there is no great difficulty in ascertaining or correcting it, as long as the staff remains in the bladder; but if he has been incautious or incorrect in his incision, and has withdrawn the staff, the operator has become confused, loses that calm self-possession so necessary in any difficulty, and then is apt to do something mischievous. I should not press this subject, if the accidents which I have witnessed of imperfect incisions, wounds of the rectum, &c., had not occurred in the practice of surgeons who ordinarily were neither deficient in practice nor a fair amount of skill in operating, but who failed in two capital requisites in all operations—caution and circumspection. I presume that no surgeon now would think of performing lithotomy, however palpably he might have felt the stone, unless he did so at the time he proposed to operate; I, therefore, only mention the following case as illustrating the propriety of the rule, under circumstances which have sometimes induced surgeons to violate that or rules of similar importance, "under pressure," when sent for to long distances in the country.

I was sent for to the borders of Scotland to perform lithotomy on an elderly gentleman, with an enlarged prostate. I took down with me a lithotomy bed, which allowed me to vary the position of a patient without annoying him. I met the surgeon who ordinarily attended him, and another, a relative, both very intelligent practitioners. On sounding the patient, I could discover no stone. The attempts made by the other gentlemen were alike unsuccessful. They assured me that they had both felt the stone so palpably, that there could be no mistake; and so confident were they, that they were well inclined, and even urgent, that I should proceed with the operation. To this, of course, I demurred, although I could give them no better explanation than that the stone might have become encysted. I reminded them of cases in which very eminent surgeons had performed lithotomy without finding any stone, and that, however strong the evidences might have been in any case, I did not believe that any surgeon in London would operate, unless he felt the stone at the time he proposed so to do.

I saw signs of great disappointment, and what I could not but interpret as something very short of that complete coincidence of opinion which is so acceptable in doubtful positions. I said I would remain a day or two, which I did, without however any better success as regarded the detection of a stone.

This turned affairs somewhat more in favour of my decision. I left for London, having given such directions as I thought calculated to improve the general condition of the patient, and to mitigate his sufferings. In about a month, I heard from the patient. He reported that his general health was improved, he had more ease and less irritability of the bladder.

As the result proved that the stone had become encysted, this might have been attributed to that circumstance, to which the attentions to his general health might have also contributed. He died, however, about fourteen months after the occurrences which I have related, and his medical attendant examined the body. He found, he said, a calculus, inclosed in a cyst at the extreme upper part (sometimes improperly spoken of as the fundus) of the bladder, fully justifying the decision arrived at in our consultations.

Cases have occurred, not only in regard to this, but also to other operative proceedings, in which, under a certain kind of pressure of opinion or other circumstances, surgeons have performed operations, followed by very undesirable consequences. To whatever distance a surgeon may be called, or to whatever extraneous pressure he may be subjected, either by the wishes, opinions, or promised immunity from doubtful issues, there is no doubt of the good sense and propriety of his allowing nothing to influence him but what I may call the intrinsic nature and requisitions of the case at the time.

Abernethy was not likely to allow anything to induce him to do anything unnecessary or of doubtful practice. I have related a very good example of his conscientious correctness, as well as of his considerate regard of what was due to the claims of the professional brother to whose patient he had been called. Amongst various occurrences which might take place, one occurred to the celebrated Dupuytren, which was related to me by Dr. M'Loughlin, is worth recording. The celebrated surgeon was sent for to a long distance to perform an operation, which, on examining the patient, he judged to be unnecessary. This was pleaded as a reason for a diminution of his fee, on which Dupuytren said, "Very well, I am quite ready to perform the operation then." On this the fee was given without further hesitation. In some cases it is not easy to explain why a calculus, which had been felt so palpably on former occasions, cannot be detected when it is proposed to perform the operation. It has been usually referred to the stone having got between the folds of the bladder, or into some sacculus in the sacculated condition of the organ, or to its having fallen behind the enlarged prostate.

I recollect being about to perform lithotomy on a boy on whom I had on two occasions very clearly felt the calculus, but on whom I could by no means detect it at the time. I accordingly postponed the operation. On the next occasion I felt it without difficulty, and extracted two calculi each, about the size of a hazel nut. If, however, a surgeon has appliances at hand for conveniently altering the position of his patient, and has had an opportunity of

examining the bladder before it has emptied itself, as well as afterwards, it can rarely happen that a stone is not detected unless it has become encysted. I should always advise a surgeon to ascertain *for himself* that the rectum is empty before he commences the operation. I have more than once known the rectum wounded where the assistant who was supposed to have done it had neglected this precaution. For the same reason the assistant should be reminded to hold the staff well up towards the pubes until he delivers it to the hand of the operator. One of the most lamentable occurrences which can happen in lithotomy is fortunately one of the most rare, I mean where one stone having been extracted another is left in the bladder.

Yet I know that it once happened to one whom I think most persons who knew him will allow to have been one of the best practical as well as most successful surgeons which the present century has produced. He confessed that on one occasion he had the mortification of having left a second stone in the bladder. He performed a second operation, and fortunately with perfect success. This should impress the necessity of a measure which I have sometimes seen somewhat carelessly performed, or altogether neglected. I mean a gentle and cautious examination of the bladder after the stone has been extracted, for which purpose in *most* cases the finger is the best instrument.

There are, of course, various modes of reaching the bladder; but of all these, there appears to me no *one* preferable to what is called the lateral operation.

By this I mean an operation which, after the incision beside the raphe of the perineum and the subjacent structures, opens the urethra at its membranous portion and divides the urethra and the side of the prostate, and a very small portion of the neck of bladder.

I believe this to have been essentially the operation of Cheselden.

With the requisite care it is not difficult in performance. It wounds no parts unnecessarily. It is ordinarily very expeditious, and can claim, I think *(cæteris paribus)*, a larger amount of success than any other (included in what are deemed important operations) operation in surgery. As there is much in common in the after-treatment which applies to all important operations, I shall reserve the remarks I have to offer until I treat of that subject in general.

Hospital Reports.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

Dr. FLEMING'S Surgical Clinique.

II.—HERNIA AND HYDROCELE.—DISTRIBUTION OF TRUSSES.

On the 2nd of December, Dr. Fleming examined twenty-four cases of hernia, which had been recommended as fit for obtaining trusses.

They were as follows :—

1. Right direct inguinal ; testicle distinct.
2. Right direct inguinal; diagnosis easy; testicle distinct.
3. Left femoral, size of a goose egg, in a nailor, perfectly reducible ; slight disposition to inguinal hernia at right side. To have a double truss.
4. Left femoral ; not so large as in case 3 ; characters distinctive.
5. Left inguinal.
6. Left direct inguinal ; with hydro-sarcocele of corresponding testicle.
7. Right inguinal, of ten years' standing.
8. Right inguinal (incipient) in a baker.
9. Double inguinal (incipient).
10. Right scrotal, of ten years' standing, with enlarged testis, and effusion into tunica vaginalis, in a cooper.
11. Right inguinal, of four months' standing (incipient) ; varicocele at left side; patient by trade a soap boiler.
12. Right femoral, of ten years' standing, in a labouring man—small vaginal hydrocele superadded.
13. Right scrotal, of five years' standing in a man, by trade a plumber.
14. Left scrotal, of twenty years' standing, in a labourer, easily reducible. In this case, there were enormous varices of the saphena vein like large ropes ascending both legs, and thighs to the groins. The man said these varicose veins were also of twenty years' standing, and that he felt no inconvenience from them in his daily work.
15. Right incipient inguinal, of six weeks' standing, in a labourer.
16. Double inguinal, of twenty-eight years' standing, in a baker ; small vaginal hydrocele also present.
17. Right inguinal, of twenty years' standing, in a newsvender.
18. Right inguinal, probably congenital, in a male infant. History unsatisfactory.
19. A male infant, which, on examination, proved *not* to have hernia of any kind, but slight effusion along cord.
20. Right scrotal in a male infant ; testicle remarkably distinct and prominent.
21. Right inguinal in a male infant in its incipient stage ; testicles distinct.
22. Incipient right inguinal in a male infant ; testicle isolated.
23. Encysted hydrocele of the chord in a child aged thirteen months. Symptoms unequivocal. Truss not given.
24. Double femoral in woman, married, and beyond middle-age.
25. Femoral in woman, married, and middle-aged, on left side ; small, but distinct.

Dr. Fleming made the following remarks to his clinical class whilst reviewing the above cases :—

He impressed upon them the large advantages derivable from the opportunities afforded them now at the commencement of the session of examining the several ordinary forms of hernia, and directed their attention to the value, as regarded assistants to their diagnosis, in observing the shapes and outlines of the several varieties of hernia. On this occasion many cases presented in the male, comparatively few in the female, and in children. In the male the cases were peculiarly interesting and instructive. They witnessed how very frequent were the inguinal varieties of hernia, and how different were the outlines of that variety which was "oblique" and that which was "direct." The anatomical peculiarity of each was ever obvious to them if the course of the superficial epigastric veins was noticed. They were not inaccurately indices to the situation and relations of the deeper vessels, and at once pointed to the seat of exit of the hernia from the abdomen. The spherical shape of those hernia, contrasted with the oblong or oval of the "indirect" or "oblique," was well worthy attention. This resemblance to the same shape in the femoral hernia was specially important; in fact the truly clinical surgeon would be enabled in many cases at once to decide the special nature of the case by his eye, or at all events to form a tolerably accurate estimate of it. The number of the inguinal herniæ was by far the more numerous, and yet femoral hernia was by no means so unfrequent in man as is usually imagined. Here were then unequivocal cases of such form of hernia in man ; and during the session Dr. Fleming felt satisfied he would be enabled to show them many such hernia—single and double, and occasionally complicated with inguinal hernia on the same side. He entered into the details of diagnosis between inguinal and femoral hernia by commenting on each case. Whilst the far greater frequency of inguinal hernia in the male should be admitted, he was very doubtful whether such was the case in the female to the extent usually imagined. He had met with many cases of inguinal hernia in the female, and was of opinion that, not unfrequently, the decision of the surgeon was rather too abrupt and, perhaps, careless in diagnosis. The examinations, for many reasons, cannot be made as accurately as might be desirable in the female, and when much fat was deposited about the pubis and the external ring, great

difficulty presented, especially when the femoral hernia tilted over Poupart's ligament. He witnessed such mistakes in more than one instance, when operation was required for strangulated hernia, and when such operation was commenced and partially proceeded with, as for inguinal hernia, although it was absolutely femoral.

In the majority of the cases above noted the hernia was large, especially the scrotal varieties.

Their complication with diseases of the testicle was usually very frequent amongst the poor labouring classes. Chronic orchitis, with or without vaginal hydrocele, was constantly met with, and was often attributable to mechanical causes, from badly adjusted trusses. With regard to the application of trusses, he particularly wished to impress on the minds of all, both patients and pupils, the imperative necessity of fitting the trusses in the supine posture, and entered into the requisite details respecting their mode of application, their measurement, &c.

Other remarks in connection with the peculiarities of inguinal hernia and of inguino-scrotal hernia, Dr. Fleming deferred until another monthly truss application, as also the considerations of important peculiarities of the same hernia in childhood life, connected with the arrangements of vaginal process of the peritoneum into its "testicular" or "funicular" divisions, whereby the absolute nature of the hernia must be influenced.

The case of "varicocele" was, in the proper designation of that term marked by some authors, very characteristic, *the veins of the scrotum being enlarged*, much more than *those of the chord*, and *hence* denoting "circocele," as specified by the same author.

The case of "hydrocele of the cord" in the infant was described, and the character of the fluid contrasted with that in "common vaginal hydrocele" at the same period of life noted in a previous clinique.

DR. LYONS'S CLINIQUE.

We have in hands a report of a recent visit to these institutions, which we hope to give in our next.

As regards the Hardwicke Hospital, our attention was kindly drawn by Dr. Lyons to the existence and partial prevalence of the purpuric element in typhus cases of late; and particularly in cases in which there was no trace whatever of cerebro-spinal disease.

MERCER'S HOSPITAL.

INTERMITTENT FEVER (QUOTIDIAN.)

Under the care of Dr. MOORE.

(Reported by Mr. Backhouse, Clinical Clerk.)

James Doyle, a pale, spanæmic man, aged 30; a stoker on board the *California*, West India and Pacific steamship, was admitted into Mercer's Hospital, on the 24th October last. While lending a hand on deck at Port-au-Prince in July, he got a severe wetting, and the day following took to bed, complaining of pains in his limbs, thirst, loss of appetite, &c. Before leaving Port-au-Prince he got an emetic, which, he thought, relieved him, still he was laid up during the voyage home. He arrived in Liverpool on Saturday the 24th August, and on the following Monday, at 10 o'clock, A.M., was first seized with the well-marked cold stage of intermittent fever, which returned daily "as regular as the tide," as he expressed it, till the date of his admission into Hospital. The day of his admission, the cold stage occupied little over an hour, the hot stage more than two hours, the sweating stage scarcely an hour, the three stages running over about four hours. The bowels were constipated, but there was no positive evidence of hepatic or splenic enlargement; the heart and lungs were healthy; the urine was passed copiously, its specific gravity was 1020, it contained the normal quantity of chlorides urates, &c., and there was no albumen present.

The patient was ordered eight grains of quinine, three times during the day, one dose to be given half-an-hour before the usual period of the attack. Diet—beef-tea and wine.

On the 25th, no attack.

On the 26th, no attack.

On the 30th he was ordered to take two grain doses of citrate of iron and quinine, three times a day, and was discharged, no return of the fever having taken place.

INTERMITTENT FEVER (QUOTIDIAN).

Thomas J., aged 19, a seaman on board the *Columbian*, Royal West Indian steamship, was seized with ague at Aspinwall, on the 28th August last, and was unable to do his duty on the voyage home, each day bringing its attack of fever, occasionally twice during the twenty-four hours. This went on till his admission into Mercer's Hospital on the 20th November. On the morning of the 21st the usual exacerbations of fever ensued, the various stages lasting about two hours altogether; the highest range of temperature being 100° Farhnt. An examination of the urine after the attack showed an excess of chlorides. On the 22nd, at 10 a.m., cold stage came on, but was of very short duration, as also were the two subsequent ones, all the stages having passed over in about an hour and ten minutes, the highest temperature being 99° Farhnt.

23rd. Another attack about eleven o'clock, the duration of the stages combined amounting to little over half an hour. Highest temperature. 998 Farhnt.

24th. No return of the fever.

25th. Same report.

30th. Having had no return of fever since the 24th, and feeling much improved in every respect, the patient left the hospital.

The treatment adopted in this case also, was eight grain doses of the sulphate of quinine, three times a day, liberal diet, and porter.

Dr. Moore remarked that the treatment of intermittent fever varied with its complications, more especially with the condition of the liver and spleen, these viscera suffering from turgidity during the cold stage, and if the disease remained long unchecked permanent mischief eventuated.

In the above cases these organs were as yet but slightly implicated; if any active congestion had existed, a mercurial purgative would have been advisable, but such not being the case, the exhibition of quinine was resorted to; this remedy Dr. Moore preferred giving in full doses, say from ten to twenty grains every third or fourth hour, in the interval between the paroxysms of the fever, one of the doses being administered about half an hour before the accession of the fit. Such treatment was attended with the happiest results in both instances, more especially in Doyle's case, who had only one attack after his admission into hospital, having suffered *daily* from the fever for two months previously.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

On the 11th instant we had an opportunity of witnessing several operations, performed in the theatre of this hospital, by Mr. Collis. These were as follows:—

1. Lithotomy in a child.
2. Operation for necrosis of the tibia.
3. Removal of toes.
4. Insertion of pins in a case of ununited fracture.

We have a full report of these operations in hands, and we hope to publish it in our next.

KING'S COLLEGE HOSPITAL.

Cases under the care of Dr. BEALE, F.R.S.

(From brief Notes by Dr. Tonge.)

Febricula.—Dennis D., æt. 6. Admitted, March 2r, discharged, March 14; in hospital, 12 days. *Recovey*; under care of Dr. Beale. Blow on head 7 weeks ago

headache and 3 fits since; previously ill, 2 days. Was delirious on day before admission and 2 nights after; flushed; pulse 100; much headache; tongue furred; bowels confined; well on 10th day.

Dilute muriatic acid and decoction of bark; wine, 3 oz. Pulv. Scammon. Co.

Febricula.—Walter H., æt. 12. Admitted, March 12; discharged, March 25; in hospital, 13 days. *Recovery.* Previously ill, 1 day; well on 10th day.

Treatment.—Liq. ammon., acetatis, and chloric ether.

Febricula.—J. D., æt. 19, music printer. Admitted, April 20; discharged, May 4; in hospital, 14 days. *Recovery.* Previously ill, 1 day; well on 10th day.

Liq. ammon., acetatis, and chloric ether (8 days); then quinine, dilute sulphuric acid, and sulphate of magnesia.

Febricula.—Ellen P., æt. 46, married. Admitted, August 18; discharged, August 21; in hospital, 3 days. *Recovery.* Previously ill, 10 days; well on 12th day.

Febricula.—Rebecca G., æt. 20, servant. Admitted, December 14; discharged, December 25; in hospital, 11 days. *Recovery.* Previously ill, 1 day. Was sent from surgical ward for supposed scarlet fever. Well on 4th day.

Liq. ammoniæ, acetatis, and camphor mixture.

Variola.—Julia S., æt. 23, servant. Admitted, February 26; discharged, February 27; in hospital, 1 day; previously ill, 3 days. Eruption appeared on 5th day. While in small-pox hospital general paralysis and complete aphonia (hysterical) came on. Was afterwards re-admitted for this under Dr. Johnson, and discharged much better.

Scarlet Fever.—J. H., æt. 19, servant. Admitted, October 29; discharged, November 12; in hospital, 14 days. *Recovery.* Second attack; previously ill, 2 days; shivering; headache; slight sore throat; pale rash; tongue coated; bowels confined; pulse 84.

Aromatic spts. of ammonia, chloric ether, and liq. ammon. acetatis (9 days); then quinine and sulphuric acid; castor oil.

Scarlet Fever.—Joseph H., æt. 13. Admitted September 29; discharged, Nov. 5; in hospital, 37 days. *Recovery.* Previously ill, 4 days. Sore throat, headache, and vomiting. Florid rash, gone on 9th day. Tonsils red and swollen. Tongue red at tip and edges—dry and brown in centre. Pulse 124. Desquamation ceased a few days before discharge.

Dilute nitro-muriatic acid and decoction of bark (21 days). Chloric ether and liq. ammon. acetatis (5 days). Chloric ether and aromatic spts. of ammonia (6 days). Then bark and dilute nitro-muriatic acid.

Scarlet Fever.—Edward M., æt. 13. Admitted, September 12; discharged, October 19; in hospital, 37 days. *Recovery.* Previously ill, 5 days. Shivering; swelling of tonsils; dysphagia, slight rash; pulse 100; respiration 32; tongue red. Desquamation began on the 14th day, and continued till discharge. Three days later re-admitted with acute nephritis.

Aromatic spts. of ammonia, chloric ether and liq. ammon. acetatis. Afterwards quinine and dilute sulphuric acid.

Scarlet Fever.—Ellen M. D., æt. 3. Admitted, June 27. *Died* on June 30; in hospital, 3 days. Previously ill, unknown. Sordes on lips and teeth; discharge from nostrils; cervical glands swollen; throat very sore; rash scanty; cuticle desquamating; urine, one-eighth albumen. No post-mortem.

Aromatic spts. of ammonia. Glycerine and iron to throat.

Scarlet Fever.—Eliza B., æt. 14, servant. Admitted, December 10, 1863; discharged, January 9, 1864; in hospital, 30 days. *Recovery.* Previously ill, 2 days. Florid rash; slight sore throat; tongue furred; pulse 100; cuticle desquamating from 10th to 24th day.

Warm bath. Mist. camph. (5 days). Then iron and quassia. Castor oil.

Dr. Markham has resigned his office of Physician to St. Mary's Hospital.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK.

A FEW CASES ILLUSTRATING THE PROGRESS AND PROGNOSIS OF DISEASED AORTIC VALVES.

Under the care of Dr. JOHN C. THOROWGOOD,

ASSISTANT-PHYSICIAN TO THE HOSPITAL.

Case 1.—Frank S., æt. 54, pale, but not thin; has the look of one who is likely to have atheromatous vessels. When seen by me at the hospital, on 20th April, 1865, he told me that he had been ill six months, the complaint beginning gradually as a feeling of pressure across the chest. Sometimes, when walking, he would feel a sort of "check" that obliged him to stop a minute or two before he felt able to proceed.

No symptoms of indigestion, no paroxysms of severe pain; no œdema. Pulse 100, small and weak; tongue clean; appetite good. Once had slight sign of gout in one foot.

On auscultation a loud, harsh, systolic murmur is heard at the cardiac base, becoming fainter as one passes down sternum and towards apex; no sign of displaced apex, or of dilated cavities. After six weeks of treatment by a bitter tonic, followed by tinct. ferri., this man felt he was well enough to return to his employment. He was permitted to do so as it was not laborious work, and he assured me he would return to the hospital if he felt any bad symptoms. Since then I have not seen him.

During his course of treatment the murmur underwent no change.

Case 2.—William M., æt. 30, ailing for four or five years, but has been worse, and had more cough, since he has worked as a porter indoors.

Eats and sleeps well; face flushed; pulse small.

On auscultation a systolic murmur is heard at cardiac base, and second sound notice as very loud and slapping; the murmur grows much fainter as one passes down sternum and towards apex.

The treatment consisted in the administration of the magnes. sulph. c ferri. sulph. ex aq. menth. pip., and, in two months, the man was discharged very greatly improved, the murmur, however, being in no way changed.

Case 3.—Mrs. B., æt. 45, has been under my observation at intervals for more than three years. She is thin, of sallow complexion, and her reason for seeking advice was on account of a cough and occasional attacks of severe spasm in the chest.

It was noticed in this case that the left radial pulse was fuller than the right, and that there was a very rough, harsh systolic murmur over the aortic valves, soon lost on passing downwards and to left.

The cavities of the heart did not seem enlarged; she rarely has palpitation, and never any œdema.

A course of tinct. ferri. wrought marked relief, and the murmur seemed to grow less harsh, and the pulses fuller and more developed.

When last seen, in the early part of the present year, there had been a good deal of trouble from whitlows forming on the fingers, and from cough at night; the murmur was very harsh, and apparently sounded quite close to observer's ear.

It will be observed that in these three cases the morbid sign was the murmur; no sign could be detected of dilated cavities or of textural change in the heart's substance, and the general symptoms of the cases were not unfavourable, if we except the occasional attacks of angina experienced by Mrs. B. in the early part of her affection. In all these cases I ventured on a favourable prognosis, provided reasonable care would be taken by the patient.

Case 4.—Jonathan T., æt. 58, pale, thin-faced man, whose looks confirm the truth of his statement that he has been a spirit-drinker, came to the hospital saying that six months ago, from no evident cause, he was taken with violent pain in the chest, running down the left arm; it was agony to him, and brandy and stimulants gave but imperfect relief. No complaint of palpitation; slight cough; pulses jerking and very visible.

On auscultation a rough to and fro murmur is heard over the aortic valves, the diastolic murmur is distinct down to xiphoid cartilage. One cannot substantiate the existence of any great amount of enlargement in the heart, and, after six weeks' treatment with tinct. ferri, c. tr., hyoscy., the man was let go very much improved and rarely troubled with anything like severe angina.

This case, notwithstanding the complication of the regurgitant murmur, did very fairly on treatment calculated to give tone and power to the heart.

Case 5.—John S., æt. 34, thin and sallow. Twelve years ago, after repeated attacks of rheumatic fever, began to suffer with palpitation, cough, some œdema and general distress of the chest.

On auscultation a systolic murmur is heard over the aortic valves; further than this, nothing abnormal was found on careful examination of the heart, but in the right lung there was some moist crackling, and he has had one or two attacks of hæmoptysis.

This patient took the tinct. ferri for a short time, and then had acid. sulph. dilut. as the hæmoptysis returned; he got much relief from treatment, though it became very evident that the right lung was seriously diseased.

As a contrast with the foregoing, I introduce the following:—

Case 6.—John T., æt. 40, a remarkably fine-looking man, but with a pale, anxious face, was seen December 17, 1866. He dates the commencement of his illness from hardships endured during the Crimean war.

For the last six or seven years has suffered much from severe attacks of spasm, made worse by taking brandy, and only relieved by firm pressure over the left chest.

The note of the heart runs thus:—"A loud double murmur at aortic base with immense hypertrophy, and dilatation of the cavities." Pulses at wrist jerking and visible.

Very little good was done in this case, and the man soon ceased his attendance at the hospital, the fatigue being more than he could endure.

This case contrasts strongly with the five preceding ones, for while they all derived considerable benefit from the use of iron, and careful living being, at the same time, with the exception of No. 5, tolerably free from complication, this, No. 6 case, had that worst of complications, a dilated ventricle hardly competent to drive the blood through the obstruction presented by the aortic diseased valves. The case did not respond to either a tonic or sedative method of treatment, the paroxysms of angina were most severe, and alarming, and the probability was that in some one of these attacks the ventricle would cease work all at once, and sudden death occur.

REPORT ON WINE.

[SPECIALLY PREPARED FOR THE MEDICAL PRESS AND CIRCULAR.]

V. PORT.

(Continued from page 487.)

To our last report we felt obliged to append a note, after it was in type, in reference to an attack made upon us by *Ridley's Circular*, an organ of the wine trade to which we have several times had occasion to refer. Those who have followed us in our several articles will, we doubt not, readily acknowledge the impartiality by which we have been guided. We commenced our reports with an analysis of the last important defence of port, in reference to which no word of complaint ever reached us, although we freely expressed our opinions. It would have been impossible for us, after that, to pass by without any notice the statements which were afterwards made by Mr. Lytton, and which corroborated, in a remarkable manner, some of the conclusions to which we had been led. There is nothing surprising in the fact that some of the disgraceful practices which have been lately exposed, should lead to consternation in the trade, and that wine journals should feel themselves under the necessity of saying something. It might, however, have been anticipated from their own statements, as well as from official documents which we have quoted, that the merest apology would prove almost impracticable. What could be said by a journal which had already denounced some of the malpractices which we and Mr. Lytton had exposed to a more public gaze. Nothing was left but to deprecate exciting the public mind; thus urging that frauds, which the more respectable merchants discountenanced, though they ought to be exposed in the trade, should be veiled from the consumers' eye. For our part, we fail to see the propriety of this. *Ridley's Circular* writes for the wine buyer and wine seller. We write for the wine prescriber, and deem it our duty to protest against practices which tend to deprive him of certainty in recommending wine to his patients. If the discussion should lead to the actual consumer becoming better acquainted with the liquors purveyed to him, so much the better for him. We have no reason to regret a result which will make the public insist on being supplied with one of the most valuable remedies in a state of purity.

The facts we have already published as to the adulterations practised in port wine, no one has attempted to controvert. Some of the most astounding of these facts were actually cited from the journal which has complained of ourselves and of Mr. Lytton. That journal, therefore, in its last counterblast to Mr. Lytton, has virtually had nothing to say. The only course open to the defendant, when port wine is impeached, is to "abuse plaintiff's attorney," a plan which, however successful on other occasions, can avail little in this. Like our critic, we had hoped the controversy was ended. Finding, on the contrary, that more evidence is asked for, we cannot refuse to offer it, and, therefore, proceed to place upon the record further testimony, and to call other witnesses. But, first of all, that there may be no question of misrepresentation raised, let us give the words of our opponent.

In the last number of *Ridley's Circular*, under the title of "Mr. Lytton and Port Wine," we find the following article:—

"We have had forwarded to us anonymously some pages of the MEDICAL PRESS AND CIRCULAR which are devoted to the one-sided view of the question at issue, which Mr. Lytton entertains, and we are much mistaken if his pen did not furnish most of the details. We have well-nigh exhausted the subject of reply, but wish it distinctly to be understood that nothing which that gentleman has so elaborately inflicted on the public can for one moment be allowed by us to extenuate the sweeping assertions that he so unblushingly, not only made, but since endeavoured to substantiate. Not that we have been able to discover one new idea in the criticisms above alluded to, the old are repeated *ad nauseam*. There are two short words among others that an instructor should be especially careful in using, as they do not admit of misconstruction, 'all' and 'none.' By their rash and injudicious adoption more heart-burnings and enemities have been created than twenty quarto volumes could contain the histories of. To suppose that any class of men, either professional or mercantile, is without guile, is to suppose a fallacy, but who would therefrom infer that no member of either class could be found honest? or, who would assert that because some black sheep had been detected in a flock, *all* must be tainted. A moment's reflection must serve to dissipate such a narrow-minded and prejudiced assertion, which savours of illiberality that no true man would like to have fastened to his character, or attached to his name.

"It is unfortunate when men in high places have the *cacöethes scribendi* strong upon them, and will write as oracles; their position gains them readers, who peruse their vanities with appropriate credence, while the comments of those who, being 'to the manner born,' should command greater respect, are scarcely noticed, "as who should say, I am Sir Oracle, and when I ope my mouth let no dog bark.' This is a species of self-conceit that will hardly be tolerated at the present day. No one must expect to scatter broadcast relish, 'let none presume to wear an undeserved dignity,' let all such as Mr. Lytton be careful to write with reservation. And now, one word about the publication of such scandals; one would almost imagine that Mr. Lytton had a vested interest in the wines of France and Germany, albeit he does profess so much love for Portugal. If he had racked his brain, how best injure the

port wine trade, he could scarcely have devised a better plan; his effusion has, during the dull season, been a boon of no small value to the newspaper literature of the day. Very recently the *Observer* had a column on the subject, but never saying one syllable about any refutation having appeared, and so with many others too numerous to mention here. For ourselves, the comments we have made on the ill-judged production were intended for our readers, the wine trade generally at home and abroad; people do not, as a rule, allow themselves to be abused and trodden under foot with impunity, but that this should surprise the invader seems to us simple in the extreme. We are glad to see that Mr. Elles, of Oporto, has replied to Mr. Lytton, of course through the same channel, the *Daily News*, and has most indignantly repudiated the assertions of that gentleman regarding port wine. It came rather late, it is true; not an hour should have elapsed 'ere calling a meeting of the Port Wine Shippers at Oporto after receiving the Government despatch, and they should have jointly expressed their opinions of the calumnies therein contained. Mr. Elles has, in very mild and becoming terms, returned thanks for the personal insult levelled at the English Oporto merchants collectively, and made a few comments on ourselves, 'he cannot wonder that the editor of a 'London Wine Journal,' should lose patience at such monstrous exaggeration.' We trust this notice (as far as we are concerned at least), may close the discussion of a subject that has been ventilated quite enough, many will say, far too much."

We have already repudiated the notion of being in any degree in communication with Mr. Lytton (see MEDICAL PRESS AND CIRCULAR, for November 27), and asked for a retractation of that offensive imputation. [See note at end of this Report.]

The remainder of the article is chiefly directed against Mr. Lytton, with whom the editor of the *London Wine Journal* almost confesses to have lost all patience, and who may be left to defend himself. But what concerns our readers is the feebleness of this defence. What is it to us that all sheep are not black, if, which is not denied, proof has been offered that many are. On the unimpeachable authority of independent witnesses, as well as on the file of *Ridley's Circular* itself, we have grounded our impeachment. We beg our readers to turn back to our previous reports, and look over the quotations we have given. To our opponents who are not satisfied with them we offer the following additional ones as an instalment, from Mr. Barron's report to Government, in 1860 :—

"The crop of,1851 (94,122 pipes) was greater in quantity and quality to any on record. That of 1852 was still very large. That of 1853 was the first attacked by the oidium, but was little, if at all, below an average. Those of 1854 and 1855 first showed any real falling off. That of 1856 was the shortest on record (14,673 pipes)."

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"The enrolment of the present year (1860) closed with a figure of 17,353 pipes, but it is necessary to state that 4600 are Ramo wines, a produce formerly not exportable at all, and that a part of the remainder is not grown in the "demarcacoa" at all."

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"The quality of this vintage may be estimated from the fact that the grapes ill-grown, were gathered three weeks before the ordinary time; still the greater part of this wine will be approved for export by the tasters.

"Wines like those of the present vintage, must, of course, require a more than average proportion of alcohol. This used to be supplied by the distillation of the "consumo" wine, but the latter now finds a more profitable market in the tavern supply. Native wine-brandy was, till last September, alone admissible to the Villa Nova stores for the purpose of blending with the export wines. Much Spanish brandy, however, has found its way thither. Fig-brandy has also been surreptitiously introduced."

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"The export of this wine did not sensibly diminish till 1857-58 when it fell off suddenly in quantities and value. The large stocks in hand have done much to mitigate the shock caused by the long-continued failures of wine. These stocks at Villa Nova amounted, on the 1st of January, 1856, to 98,776 pipes; and 1sat June to 77,582 pipes. These deposits are, for the greatest part unfit, for the English market. Those which (according to the vitiated taste of the day) are considered of the best description are mostly adulterated to such an extent with elderberries, geropiga, and other ingredients, that it would be difficult to procure 20,000 pipes of pure wine among the whole quantity offered for sale. These stocks must, however, be got rid of. The shipments of late years have already had a tendency, by their inferior character, to throw discredit upon all shipments, however excellent, bearing the name of port, and to depreciate the character of the whole stock. Notwithstanding the government guarantee of quality, fresh supplies of crude ill-fermented wines have been annually thrown into Villa Nova."

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"The wines of Spain have not suffered from the blight to the same extent as those of Portugal, and have been for many years supplanting those of Portugal more and more in the British Market. The total consumption of wine in the United Kingdom has remained for many years nearly stationary, between 6,000,000 and 6,500,000 gallons. Port and sherry still form eight-tenths of this whole consumption, but the relative proportions of the two towards one another have varied considerably. Between 1845 and 1851 the former had fallen from 52 per cent. to 40 per cent. of the whole quantity consumed, while sherry has advanced from 22 per cent. to 40 per cent., *i.e.*, to an equality with port. Since that time the proportion of port wine must have still further declined. In 1854, the relative quantities were 2,622,881 gallons of port, and 2,741,230 of sherry. Masdeu and Benecarlo, a Rousillon, and a Valentian wine, are much used to counterfeit or adulterate port. Large quantities of counterfeit port are manufactured at Cette to the great injury of Portuguese trade."

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"130. The United Kingdom is the best customer for the wines of Portugal, taking more than half the total values exported. Part of the exports declared for Great Britain, are not, however, for home consumption, but are re-exported from our docks to other countries. Our taste for port has apparently diminished. It is to be feared that the present deterioration and enhancement of the article may encourage that tendency of the English palate. The same remark applies to the Brazilian demand for Portuguese wines. It is evident that the wines of late years must be radically unsound. To disguise and preserve them, unusual doses of alcohol have to be added, thus aggravating the fault generally complained of in Portuguese wines. Corn-brandy must now become generally used for that purpose instead of wine-brandy, another circumstance tending to impair the character of the wines.

"Before the grape disease the imports of this (fermented beverages) class were of little importance, as shown by the returns for 1851 and 1855 in table No. 8. Since that they have risen to considerable value, viz., in the last three financial years, £93,462, £89,460, and £44,178. Of these quantities about one-half was British corn-brandy of different qualities. The value of British imports during those years were £59,052, £51,726, and £23,976. The great decrease last year coincides with the improved vintage of 1858. Besides the imports of spirits, large quantities of Spanish wine-brandy are smuggled across the whole line of frontier. This is required partly for blending with the Lisbon and Oporto wines intended for exportation."

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"49. During the present year (1860) there is every prospect of an increased demand for British spirits, both for tavern use and for blending with wines. Hitherto native wine brandies alone have been by law admitted to the port wine depôt at Villa Nova for purposes of blending. Now, however, by a decree of the 12th of last September, foreign spirits may also be admitted there for that purpose. The entrance duty of £3000 per almude (about 3s. 7d. per gallon) on foreign spirits would have been reduced by Mr. Airla's tariff to £2000, on the principle that brandy is a raw material, necessary for the fabrication of wine."

The accuracy of the above statements has remained unchallenged, and surely it is now too late to impugn them. We have given them thus fully, lengthy though they be, because a number of interesting points are incidentally mentioned, and the blue-books in which they are contained are not readily accessible.

We propose, however, to relieve their sameness by testimony of a similar nature, equally conclusive, and equally unimpeachable In 1862, Mr. Charles Bernard

one of the assistant secretaries at Her Majesty's Customs, was sent on a tour of inspection through the wine districts of the Continent. His researches were reported in a blue-book, and contained a number of most important facts which really anticipated Mr. Lytton, and upon which we had, to some extent based our own conclusions. Amongst other things, Mr. Bernard reports that :—

"The wines of Valencia, Benecarlo, and Alicante, being rich in colour, are made up to similate port wine, and the casks are prepared to resemble port pipes as to size and appearance. A very large proportion of these wines finds its way to France, for the purpose of blending with other wines; no doubt having a large share in the composition of the imitation ports shipped to this country from Marseilles."

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Pursuing his journey, he says :—"At Lisbon, I obtained samples of various wines, but the amount of fortification was so excessive that I thought I should exceed my instructions if I forwarded them; and the natural wines of this year's growth, as yet unfortified, were in such a state of high fermentation as to render it impossible to send them. I therefore turned my attention to the districts of the Alto Douro, as being those in which the strongest and most celebrated wines of Portugal were produced. The samples which I procured from the different vineyards in the district, of the present year's growth, were as yet free from extraneous spirit. They were, however, in a state of fermentation at the time, but sufficiently advanced for me to forward the samples, Nos. 38 to 42, which show an average strength of 23·5 per cent. only. It is, however, to be expected that in the tonel a considerable increase of spirit may be generated.

"Mr. Fladgate, grower, &c., Oporto, illustrated this to me by the following statement:—He tried a sample of wine when drawn from the lagar or press in October, 1860, and found it contained nearly 19 per cent. of spirit. In June, 1861, the same wine drawn from the tonel showed 22·8 per cent."

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In the course of his wanderings, Mr. Bernard examined many specimens of wine, the characters of all of which are detailed in his Report. We can only select one or two for our present purpose. He says that, sample 44, "a wine of this year's growth, unmixed with spirit, gives a result of 25·9 per cent. The next sample of the same vintage, with two almudes (about ten gallons) of spirit added, gives 33·3 per cent. The first, which is a wine of excellent qualities, would not be long allowed to remain without the addition of spirit. It is the invariable practice in the Alto-Douro, with the best wines, to add spirit to the "must" to check fermentation, and insure its retaining its sweetness. Only second-class wines are allowed to remain any time without spirit, and when such is the case, the wine is generally rough and harsh."

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Further on, he writes :—"I come now to a sample which possesses more interest in regard to the present question than perhaps any of the others. It was from the stores of Mr. Harris, one of the oldest merchants of Oporto, and was made on the French system, adopted by Mr. Forrester, and I cannot do better than give the words of Mr. Harris, in his letter accompanying the samples. He says—'The two bottles of wine sent have been in my possession upwards of fifteen years; they are of the vintage of 1834, and are taken from two lots made at the same time in the French style, and without a drop of brandy. The moment the fermentation was complete, the wine was bottled. The experiment was made to ascertain whether port wine could be so treated as to keep without brandy, and, as we are now in the year 1861, the trial has completely succeeded; but the wine, though made in a good situation, in the Alto Douro, and in a year remarkable for fine wines, was valued in London at about £8 or £9 per pipe, being considered excessively harsh and inferior to the common low wines of France.' The cost to the maker could not be less than £25 to £30 per pipe, so that, in a commercial point of view, the failure could scarcely have been more disastrous."

We trust that we have now offered sufficient testimony to support all the charges we have made. If our opponents desire it, we can adduce plenty more of the same quality, although such a course would seem superfluous, for it is clear, from the last paragraph, that natural and pure port wine is not in demand in this country, and when attempted to be introduced was esteemed less than the commoner French wines.

Note.—The above article was in type when we received the letter signed "Ridley and Co.," which appeared in our last number. The crowded state of our columns prevented us giving space for both to be issued last week, and we therefore decided to publish the letter in question, and postpone our report. We trust that the conductors of *Ridley's Circular* will see that in this at least we have been impartial, and if they will do us the honour to once more look over our reports they will find that we have done full justice to that periodical.

We accept the explanation offered as to the phrase to which we took exception. At the same time we appeal to our readers whether the words used were not liable to give rise to the misconstruction. We felt bound at once to state, in unmistakable terms, that Mr. Lytton had nothing to do with our reports, and we may add has never had anything to do with the journal, or with any of its staff, in any way whatever. As to our having quoted his opinions, that is no more than we had done by other official personages. The quotations were duly acknowledged, and the reader referred to the blue-books in which the passages were to be found. Do such quotations justly provoke such comments? We might as well apply, on the same grounds, the same words to *Ridley's Circular* itself, and argue that Mr. Lytton's pen furnished that journal with *most* of *the details* for some of the articles in which he is immolated.

When we quoted Mr. Crawford at considerable length, such expressions were not applied.

We are told that Mr. Lytton's statements are "merely theoretical, and to say the least, highly coloured," and are further assured that the trade "are well informed as to the *facts*."

We think it will be admitted even by those who do not accept our opinions, that we too have proved by these articles that we are well informed as to the *facts*. One fact upon which we have particularly insisted is that port wine, as sold in this country, is generally fortified and adulterated, and this fact is coolly admitted in the letter upon which we are commenting. How could it be otherwise when *Ridley's Circular* had over and over again blamed the practice, and we had *fortified* our reports by quotations from its columns? The only excuse we extract from the letter is that "all sheep are not black." But to prove their point Messrs. Ridley should have shown that there were no black sheep in the wine trade. The question may be whether black or white predominates. If those who sell adulterated port are to be styled black sheep (the phrase is Messrs. Ridley and Co's—not ours), we fear the general hue of the flock will prove rather sombre. At any rate it would seem so from another FACT—which we commend to the attention of *Ridley's Circular*, as well as to that of all persons interested in this question—more especially those who do not agree with the views we have expressed.

The *fact* to which we are about to allude, and which forms a natural conclusion to much that we have said, is a very simple one. It is that since these reports were commenced a quantity of pure, unadulterated port wine was shipped to this country by a very large grower, who thought to try whether such an article under the new tariff might not be profitably sent here. On arrival it was actually stopped by some of the officials, and pronounced at first to be *not wine at all*. Further investigation and analysis by

the Inland Revenue Department proved that it was. In this instance the grower actually came over to England to look after the matter.

Now, our opponents are fond of appealing to facts. There is one we leave them to study. To us it seems to show that not only are ordinary wine-drinkers unacquainted with the characteristics of pure port wine, but that those who might be supposed to have the largest experience are deceived by the false taste that has been created and kept up by the frauds we condemn. We need scarcely add that port wine is not to be obtained pure in England in an ordinary way of business. After diligently ransacking the market we cannot tell our readers where they may find it, and if our opponents can produce such specimens as are drunk by the Portuguese, we should be glad to see them.

METEOROLOGY OF NOVEMBER, 1867.

THE last month has presented several remarkable features, which have, as usual, been done justice to by Mr. R. H. Allnatt, of Faut, in Sussex. We extract the following from his able analysis :—

"Cloud.—The month was singularly free from the heavy fogs which generally characterise an English November. The cloud modifications were varied, and sometimes at sunset assumed beautiful forms and gorgeous hues. There were nine cloudless days, and the nimbus, or raincloud, existed only on eight days. A curious modification is described by Mr. James E. Beveridge as having been witnessed by him at Chatham on the afternoon of the 11th. Above the horizon was a succession of dark masses of cirro-stratus rolled by the action of opposing wind currents into groups of insulated spheroids. Their origin appears to have been analogous to that which produces the beautiful undulations of cirrocumulus so often seen at approaching sunset.

"Wind.—A tempestuous intermittent Polar gale, accompanied with flying scud and dashing rainfall, occurred on the 16th, and lasted far into the following day, producing great and fatal disasters on the coasts. The wind for 25 days was complicated with the N. On two days preceding the gale of the 17th-18th it was due S., when it suddenly changed to E.N.E., and remained, with slight exceptions, Polar to the end of the month.

"Barometer.—The barometrical oscillations were steady, and ranged from 29·20 on the 1st, to 30·20 in. on the 24th, thus showing the extreme fluctuation as one inch.

"Thermometer.—The range of temperature was considerable—the highest day was 53·8 deg., and the lowest 33·0 deg., a difference of 20·8 deg. Frosts on the 27th, 28th, and 29th.

"Rainfall.—Nothwithstanding the heavy gauge of the 17th-18th, which amounted to 0·82 in., the aggregate rainfall of the month reached only 1·25 in., which is *minus* the estimated average fall by 0·79 in. Last year the low-lying parts of England were flooded by the excessive rainfall of November, when the average was greatly exceeded.

"Ozone.—Considerably developed, and ranged from 10 to 3 deg. The *minimum* occurred on the 27th, beneath the influence of a Polar wind and 6 degrees diminution of temperature.

"Hygrometer.—Atmospheric saturation on the 9th. The range of humidity was from the *maximum* 100 to the *minimum* 70, the latter being 30 deg. below the point of complete saturation.

"The era of meteors was this year singularly unpropitious, the sky in England having been obscured by a dense canopy of composite cloud, which effectually precluded all useful observation. Advices from Toronto, Canada, state that upwards of 2000 were visible on the night of the 13th-14th. The culminating point there was at four o'clock on the morning of the 14th. They are almost all described as having emanated from the radiant in Leo."

REORGANISATION OF THE FITZROY DEPARTMENT OF THE BOARD OF TRADE.

AT the annual meeting of the Royal Society, on the 9th inst., Lieutenant-General E. Sabine was re-elected president. His address first touched on the reorganization of the Meteorological department of the Board of Trade, and a proposed system of British land meteorology, to be carried out under the direction of that Board. The suggestion made by the Royal Society to establish a small number of meteorological observatories supplied with self-recording instruments, received the unqualified and emphatic approval of the committee nominated by the Government, and was viewed by them as an effectual means of supplying a secure and adequate basis for the discussion of the variations of the weather in the British islands. This subject was urged on the consideration of Her Majesty's Government by the President and Council of the Royal Society in 1855. Much information has already been collected both from land stations and from the logs of ships, but much remains to be done in extracting, collating, combining, and discussing the valuable materials thus obtained. The work both of collecting further information, and of discussing and arranging for communication to the public the information already in the office, and that which may hereafter be obtained, has been resumed under the general superintendence of the meteorological committee of the Royal Society, profiting by the suggestions contained in the report of the committee of the Board of Trade.

An effort is to be made to make available for the benefit of mariners the information which reaches the office by telegraph early in the day as to the state of the weather at different points of the coast. The committee are prepared to convey, free of cost, telegraphic intelligence of the existence of any serious atmospherical disturbance which may have come to their knowledge to all ports to which it appears to them that such information would be of importance. From an early period the attention of the committee had been drawn to the importance of rendering as trustworthy as possible the intelligence received from the coast stations. It is hoped that, as the result of an inspection that has been made, the accuracy, and consequent value, of the reports will be improved, and in fact this has already been in part effected. The President then alluded to the arrangements made in respect to the observation of the total solar eclipse of next year. This eclipse will be of the greatest possible duration, affording, therefore, more leisure than usual for such observations as can only be made during the brief interval of the totality. The total phase will be visible in India, but elsewhere only in countries practically unavailable. Recent observations on the spectra of the heavenly bodies render spectroscopic observations of the red protuberances and of the corona a matter of peculiar interest at the present time. The President and Council have therefore considered how far they might contribute to a full use of so rare an opportunity in regard to these more especially physical phenomena.

After the address the Cople medal was awarded to Dr. Von Baer for his eminent researches in comparative anatomy, philosophy, and embryology ; the Royal medal to Messrs. John Bennet Lawes and Joseph Henry Gilbert, for their researches in agricultural chemistry ; a medal was awarded to Sir William Logan for his able labours on the gealogical survey of Canada.

Review.

THE VISITING LIST FOR 1868. London: John Smith, and Co., 52, Long-acre.

NOW is the time when most people are purchasing their almanacks, diaries, journals and pocket-books for the new year. Before our readers do so, unless they have already been in the habit of using Smith's well-known *Visiting List* they may be glad to be reminded that this handy book combines all that can be wanted by the physician, surgeon, or general practitioner. It is to be had in various sizes for from 25 to 100 patients daily, and with the least possible trouble it keeps a list of appointments and engagements, prevents omissions and serves as a record of what has been done. Each day has its column in which by a few simple signs the engagements or intentions are marked, and then their having been fulfilled is clearly indicated, while omissions are at once betrayed. Most of our readers must have seen it—probably the majority have tried it—at any rate those who have been long in practice. The edition for 1868 is the twenty-second. Unless the book were a success it would scarcely have been a favourite for two-and-twenty years. Junior practitioners will, no doubt, be glad of this hint. For their benefit we extract from the preface to the first edition the following paragraph, which sums up its uses:—

"But it is not merely as a *Visiting List* that a plan of this kind may be turned to account. In the hands of its contriver it is made to perform many useful offices,—some of them difficult to set forth in print, and some which may be readily specified. It serves him, for instance, for a journal throughout the year, as well of every important occurrence as of the number of patients treated; marks, by the length of its columns, the busier periods of the year; affords, by comparison with former years, a measure of increase and decrease in his practice; and enables him, when a patient comes twice under his notice, to refer at once to the period and duration of his former illness. It is also a book of account against the patient who has not paid a fee at the time. It ensures the exact performance of every promise, whether relating to things of importance, or to the merest trifle, and procures him, at no great cost or trouble to himself, a reputation for attention, if not a portion of that *confidence* which is the broadest stepping stone to success."

We may perhaps be justified in adding that the *Visiting List* is to be had in various bindings, the prices commencing as low as half-a-crown. A list of the sizes and specimen page can be had on application to the publishers.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 18, 1867.

INDIAN MEDICAL OFFICERS.

THE Medical Profession, though its importance and value all the world over cannot be overrated, is the one which, we regret to say, is almost invariably underpaid. Few of those who devote to it their talents and energies, can ever expect to realize a fortune. Some there may be who have gained a name, and who form an exception to this general deprivation, but, nevertheless, the fact cannot be disputed. Most are forced to content themselves with means that rarely exceed their necessities, while many are struggling against the pressure of a limited income, which no industry of their own can increase. National institutions, where the services of a Medical Officer are absolutely indispensable, and where usually men of the highest professional character are employed, are content, and, indeed, seem to think it right to reduce the salary to the lowest possible limit; so that it is often more the honour and the position, than the profit, which secures for them the necessary acquirements and skill. The army and navy medical appointments form no exception to this rule. The men who seek them are not by any means overpaid, while there is, at times, an irregularity in apportioning the pay, which must produce dissatisfaction and ill-will. We speak now more particularly in reference to the Indian service. It appears, from the scale of pay given out last April, in the Secretary of State's despatch, that the great majority of Medical Officers will receive for the charges they hold, less than they are entitled to if away on leave. Hence civil employ forms no inducement whatever to acquire the native language, and, as a class, Medical Officers remain ignorant of it. A promise of revisal was given, and in September, 1866, it was announced that such revisal would have a retrospective effect; but when the surgeons were expected to reap the benefit of this regulation, another statement appeared, that the word *not* was accidentally omitted, and that it should have been "not have a retrospective effect." The scale of revised salaries was to take place in November, 1866, but afterwards it was ruled that it should not come into action until September, 1867, thus depriving them of just ten months of extra pay. Another manner in which Medical Officers were treated in regard to pay and allowances is that when they applied for permission to draw the pay of their rank instead of civil salary, they were informed that it was "not intended to issue military pay of rank instead of civil salary at stations or in appointments where the civil salary, or allowances, or emoluments for private practice were already sufficient to make the appointments attractive." And again, the Governor-General in Council ruled that "during periods of transit from one station to another, civil Surgeons shall draw the salary of the lower-paid appointment of the two," whereas formerly in such journeys a Medical Officer drew, as a matter of course and right, the pay of his military rank. Now, on the contrary, the great bulk cannot be said to draw any staff allowance whatever.

These things, we consider, ought to awaken the attention of Government if they have any desire to do justice to an indispensable and deserving body of men, and if, moreover, they wish to secure for the foreign service Medical Officers of unimpeachable professional ability.

UNIVERSITY OF CAMBRIDGE.

THERE is a rather wide-spread impression in some circles, that the Medical Examinations of this University are not such as they are at some other Boards, and that the degrees, therefore, are not so valuable as proofs of professional knowledge as of social status. We take this opportunity of laying before our readers a few facts, by way of showing that whatever may have been the case in the past, the authorities are now alive to the necessity of keeping up their standard, and that the system, as explained to us on the highest authority, is such as cannot fail to be approved. We have seen the papers lately set for the degree of Master in Surgery, as well as those for the Natural Science Tripos, and we feel some regret that we have not space at our disposal to reprint them, nor to enter into an elaborate criticism of them. Valuable, however, as they are, as indications of what is expected of candidates for distinction at Cambridge, the particular merits of the papers in any one year are of less importance to the Profession at large, than a general notion of the other requirements.

We are, therefore, glad to state, and we could, if necessary, prove this upon testimony which could not fail to satisfy the Profession, that the recent examinations were of a most searching and practical character. Pathological specimens from the museum, as well as recent ones, were introduced. The anatomical knowledge of the candidates was tested by means of recently-dissected parts. Their operative skill was proved by requiring them to perform operations on dead bodies, and their general fitness for the degree put to the clinical test by taking them to the hospital to examine patients. All this was done openly, in the pre-

sence of such students as chose to be present, and who thus had the opportunity of seeing what kind of ordeal has to be gone through, as well as of gaining information.

The examinations for all medical degrees are now conducted in the same manner and with the same care. The examiners are elected annually by the Senate ; some being residents and others non-residents. It would be difficult to devise anything more complete than the plan we have chronicled as in actual use at Cambridge. A series of questions for the written examination must form part of every ordeal of the kind. It is, therefore, in the oral and practical examination that any improvements are to be effected. The London Colleges of Physicians and Surgeons have recently been commended for the use of pathological specimens, for the clinical examinations, and so on. Cambridge employs all these, and also what is in England a great innovation—viz., publicity. Abroad, examinations are uniformly open to students and practitioners who form a critical and just public. We believe the Licentiates of the King and Queen's College of Physicians in Ireland have also free admission to the examinations of that body, and the plan works well.

Cambridge, in throwing open her proceedings to all her students, has taken a bold step, but one which can scarcely fail to raise the value of her degrees in the estimation of the whole profession.

EXAMINATION OF PAUPER LUNATICS BEFORE POLICE MAGISTRATES.

MANY of our readers will remember that at the annual meeting the Metropolitan Poor-law Medical Officers' Association, reported in our columns, the following resolution was unanimously adopted :—

"That the Association having considered the present practice of taking pauper lunatics before a police magistrate, is of opinion that it is fraught with evil ; often gives rise to painful scenes in court ; and, in the case of recent mental disease, is calculated to prejudice the patient's prospects of recovery, by creating an impression that an offence has been committed.

"The Association, recognizing with satisfaction the fact that the Commissioners in Lunacy object to the practice in question, requests the Council to use their best endeavours to obtain an alteration in it, so that every lunatic may, if possible, be visited by a justice or clergyman at the workhouse."

In accordance with this resolution, communications were made with the Poor-law Board, and with the Commissioners in Lunacy. The Commissioners of Lunacy immediately afforded the assistance asked for, by writing to the Poor-law Board to advocate the course proposed by the Association, at the same time pointing out that a similar recommendation had more than once been offered in their annual reports.

We have now to chronicle the fact that the Poor-law Board has at length taken action, and adopted the plan recommended on such eminent authority.

In order to give our numerous readers the most exact information, we transfer to our columns the following circular letter from the Poor-law Board, which has just been issued to the Metropolitan Boards of Guardians :—

(Circular.)

"Poor-law Board, Gwydyr House, Whitehall, S.W.,
26th November, 1867.

"SIR,—I am directed by the Poor-law Board to state that their attention has been called by the Commissioners in Lunacy to the practice which is said to prevail in regard to the removal of lunatic paupers in the metropolis to lunatic asylums. It is alleged that lunatics for whom an order of removal to an asylum is required are frequently taken before the magistrates sitting at the police courts in the metropolis, and after examination there are removed under the proper order to the asylum. It is stated that the investigations required in such cases are often such as are not suitable to a public court, and that the unfortunate object of the inquiry is not only exposed to public observation in a painful manner, but his malady is possibly increased, or his cure retarded, by the excitement caused by the proceeding.

"The statute 16 and 17 Vict., c. 97, in sections 67 and 68, provides for the orders under which pauper and certain other lunatics are to be removed to asylums, and requires the lunatic to be brought before one, and, in some cases, before two justices, who are to issue the proper order of removal. As the lunatic is to be brought before the justice, it is customary to take him before the justice sitting at his usual official place of business, and, as regards a police magistrate in the metropolis, that is the police court. But it is provided by the statute, in both cases, that the justice may examine the lunatic at his own abode or elsewhere, and may proceed as if the person were brought before him in the manner therein previously prescribed.

"It is also provided in section 67 that in case any pauper deemed to be lunatic cannot on account of his health or other cause be conveniently taken before any justice, such pauper may be examined at his own abode or elsewhere by an officiating clergyman of the parish in which he is resident with a relieving officer, or if there be no relieving officer, an overseer of the poor, and such persons may make an order for the removal to the asylum.

"It is recommended by the Commissioners in Lunacy that in the metropolis one of these courses should be adopted, and that instead of the lunatic being taken to the police court, endeavour should be made to arrange that the lunatic may be visited by the justice or the clergyman, and the relieving officer, at his place of abode, or elsewhere, where he may be when it is sought to have him removed to the asylum.

"The Board cannot but coincide in the views thus expressed as to the evils attending the general practice above adverted to. They believe that in some of the metropolitan parishes a different practice has prevailed, and has been found to be available without any inconvenience.

"They therefore have to urge upon the consideration of the guardians the propriety of endeavouring to provide that some justice, having proper jurisdiction, should attend at the place where the lunatic may be living, whether at his own place of abode or at the workhouse, to hear and investigate the case, and make the proper order of removal. Should this be found impracticable, the Board do not doubt that the magistrates sitting at police courts will, as far as may be possible, arrange that the examination may be taken in a private room.

"Where a justice cannot be found conveniently to attend, the clergyman of the parish and the relieving officer may be applied to for this purpose. But the Board consider it undesirable that the latter course should be resorted to except there be a very strong necessity.

"Due care must be taken that the proper medical assistance is rendered in these cases, and that the investigation, while free from the excitement of an open court, is so conducted as that no doubts may arise as to the order having been issued after full deliberation, and with all necessary regularity.—I am, sir, your obedient servant,

"G. SCLATER BOOTH, Secretary.

"To the Clerk to the Guardians."

Notes on Current Topics.

Sanitary State of Manchester.

THOSE who have followed our weekly comments upon the public health, will not have failed to observe the high rate of mortality that has prevailed in Manchester. Last week the death-rate was 36 per 1000, while in London it was only 27. A permanent difference of this kind means the loss of 3000 lives per annum more than in the Metropolis. Last year the Manchester mortality was 32 per 1000, although cholera scarcely visited the city. The year before, that is 1865, it was 33 for the year. During the present year, the mortality, in one week, actually reached the figure 48. In the ten years, 1851 to 1860, the same disproportion between the mortality of London and Manchester was recorded. This high mortality was particularly noticed in

children. Thus, in the ten years indicated, the annual mortality of Manchester children, under five years of age, was 117 as against 40 per 1000 in the healthy districts of England. The Salford Sanitary Association has done much to promote sanitation, but in face of such figures as these, it behoves the local authorities to take up sanitary reform as of the utmost importance, and not leave it in the hands of a voluntary association.

Adopting Children.

A CORONER'S inquest last week brought to light a practice, the existence of which in many quarters was little suspected.

On the 16th of last March the following advertisement appeared in the *Clerkenwell News* :—"Adoption.—A respectable married couple, having no child, earnestly desire to adopt one as their own; well taken care of; premium acceptable. Address, Mrs. Cooper, 10, Nelson-street, St. Peter's-square, Hackney-road." This advertisement was answered on the very day it appeared, the 16th of March. The advertisement follows three others in the *Clerkenwell News*, each headed with the same word, "Adoption." These announcements are irrespective of others in the same sheet commencing with the same words —"Children (care of one or two) wanted by a respectable married person," &c. Another advertisement bearing upon the same subject is in these terms—"Children, wanted to place one or two infants, and to nurse; neighbourhood of St. John's-wood or Regent's Park preferred. Address, stating terms, &c., to Mrs. ——, post-office, Pentonville-road."

After some correspondence an agreement was effected, and the advertiser received from a young lady a healthy boy, with an expensive ontfit of clothes and a premium of £10. The young lady said the child was her's, and illegitimate, that she should shortly emigrate, that none of her friends knew of its existence, and she obtained permission for herself and the father to visit the child *once* before emigrating. Up to this time they have not paid this visit. It is the death of the child which led to the inquest and these disclosures.

From inquiries that have been made it would appear that the practice of adoption, under similar conditions, is carried on to a large extent—is almost a trade. Usually the adopted child is registered in the name of the parents who adopt it, so that in case of death a clue is not often to be found.

It should be known that a heavy penalty is attached to the act of making a false statement to the Registrar of Births, but then as all parties are interested in secrecy, it is not easy to trace the persons.

We need not, as some of our contemporaries seem inclined to do, deny the possibility that children may sometimes be adopted in all honesty. In such a case, however, there could scarcely be any objection to register the child in the name of the adopting parents, and giving it the rights of a child born to them. This might possibly prevent a system of underhand adoption, which must be looked upon with great suspicion.

The Public Health.

THE severe weather has occasioned a considerable increase in the number of deaths, especially in those resulting from diseases of the respiratory organs. The mean temperature last week was 35·7, and since the 1st of November the mean has been below the average on twenty-eight days. The deaths registered in London are above the average by 34, the actual number for the week having been 1588. The poor have, no doubt, been the principle sufferers from their inability to protect themselves from the inclemency of the weather. Food and fire are the great wants which bring disease and death in their train. The annual rate of mortality in the large towns of the kingdom was 29 per 1000 persons living. The rate was 27 per 1000 in London, 31 in Edinburgh, and 25 in Dublin; 28 in Bristol, 29 in Birmingham, 34 in Liverpool, 36 in Manchester, 29 in Salford, 27 in Sheffield, 24 in Leeds, 27 in Hull, 30 in Newcastle-upon-Tyne, and 33 in Glasgow.

Sea-side Drainage.

THE interest excited by our recent articles on this subject seems likely to continue, and it will, therefore, be our duty to proceed with the investigations we have commenced. We do not feel called upon to insert the letters we receive, expressing doubts as to the perfection of our system of enquiry, and offering no facts. At the same time we may hope to profit by the friendly hints we have received. The drainage of Eastbourne was described a week or two since, by Dr. Hayman, in a letter which we published, and we can, from personal experience of the place, endorse the favourable opinion he pronounced. His position lends great authority to his statements, and we were, therefore, very glad that he appended his name to them, and rendered it unnecessary for us to give another report.

We publish now an account of Scarbro', from the pen of Dr. Pierson, and take the opportunity of inviting other readers, similarly placed, to communicate their impressions. Questions of this nature are of importance, and cannot be too much discussed, especially all facts are of value in reference to the failures as well as the successes that our engineers have had.

Dr. Richardson's Practical and Experimental Lectures.

IN his lecture of December 10th, Dr. Richardson made some important practical remarks on the effect of temperature in determining the rapidity with which anæsthesia is produced.

A bird, subjected to the action of chloroform vapour in a glass chamber, which had been raised to a temperature of 80°, was perfectly narcotized in two minutes seven seconds; while another, subjected to similar influence in a chamber of which the temperature was 40°, took a much longer time before it was perfectly narcotized.

Dr. Richardson considers 80° a good temperature at which to administer chloroform. At this temperature the patient is very soon overcome by its influence, without the stage of excitement which is inconvenient and troublesome sometimes when the temperature is lower. In operations for ovariotomy, where the surgeon has the room raised to a high temperature, the patients usually take the chloroform with remarkable ease and tranquillity.

At this lecture it was pointed out how even the best inhalers were imperfect and unsafe, inasmuch as they all failed to regulate the temperature at which the chloroform was evaporated, and the reputed safety of Snow's inhaler, it was taught, lay in the experience and watchfulness of him who used it, rather than in the structure of the instrument itself.

Poor-law Medical Officers and their Remuneration in England.

Even the incredible niggardliness of certain Boards of Guardians in Ireland, is surpassed by similar functionaries in England; indeed, so far has the system of trading on the necessities of medical men gone, that it appears that they are obliged absolutely to pay for permission to doctor the paupers gratis. A correspondent has kindly forwarded to us a copy of the *Uxbridge Times*, from which it appears that two medical men have actually competed for appointments in that Union, the relative salaries of which are £30 and £35, *and find themselves* in medicines—£30 and £35 a year—respectively 1s. 7¾d. and 1s. 11d. per day, something less, we should presume, than the salary of the person who cleans the boots of each Guardian—a scale of payment which, as it is supposed to cover pharmaceutical as well as surgical services, tends to a sort of involuntary homœopathy as regards the pauper patients and the unfortunate doctor himself.

The late Epidemic of Yellow Fever at the Mauritius.

In a recent communication to the Epidemiological Society, Dr. Edwards, the General Sanitary Inspector of the island, gave a full and interesting resumè of the causes which induced the late outbreak of yellow fever, and the results which followed on them. He represents the island as suffering under the most unfortunate sanitary defects, inasmuch as, previous to this epidemic, the death-rate had reached 37 per 1000 in the rural districts, and 48 per 1000 in Port Louis. The population of the Mauritius was about 340,000, of whom 240,000 were Indians, and the remainder Europeans, Creoles, and Chinese. 100,000 of the Indians are engaged on the sugar estates, and of these and the free Negroes the sanitary condition is equally unsatisfactory. In February, 1865, a tremendous fall of rain took place, which stirred up every existant reservoir of filth, and inundated the lower lying districts with fœtid emanations of all sorts. Although every precaution was adopted, and for some time with success, the yellow fever broke out in January, 1866, the immediate exciting cause being the cleansing of a lagoon of mud. The disease spread with frightful rapidity, yet the great majority of deaths was from destitution rather than from the disease. It lasted from January to October, and was at its height in April, when as many as 10,000 deaths in the month were recorded. In that dreadful period of nine months 38,200 deaths took place, being 11 per cent. of the entire population, and the fearful proportion of 16 per cent. of the population of the affected districts.

The Farnham Inquiry is concluded, but the report not yet made. What will be its nature may be easily devined from the evidence that has been produced, as well as from the fact that the chief commissioner expressed an opinion that it would be likely to produce benefit. The opinion expressed by us that the Poor-law Board stands in need of a radical reform, has been echoed in all directions.

The St. Andrews Graduates' Association has sent another deputation to the Lord Advocate to represent the claims of the medical graduates to the franchise. The subject is one of great importance to the whole medical profession. The proposers of the exclusive clause ought by this time to be shamed into justice. We hope the Association and individual graduates will spare no pains to influence members of Parliament to vote against the obnoxious clause.

We have received the Report of the Metropolitan Board of Works for 1866-7, which refers to many points on which we have commented, and to which we shall take an early opportunity of returning.

Sir Thomas Watson has been elected honorary Fellow of St. John's College, Cambridge. The same learned baronet has also been elected the first President of the new Clinical Society, the formation of which we have already announced.

The question we lately mooted of the eligibility of St. Thomas as a station has acquired new importance from its cession to the United States. The *Times* admits that there is now an opportunity for changing our station. Why not adopt our suggestion, and abandon this home of yellow fever?

Another letter from Dr. Kirk has been published, which seems to afford further hopes that Dr. Livingstone is alive, and may shortly be met with.

The contributions towards the Hospital at Ventnor, to which we lately drew attention, already exceed £1000.

Charing-cross Hospital has organized a department for diseases of the skin, and advertised for a physician to take charge of it. It is thought that Dr. T. Fox will obtain this appointment. He has long devoted his energies to this branch of practice. We commend the plan of giving the new appointment to some one not already on the staff of the hospital.

Sir Arthur Elton has published a letter, showing that the Poor-law Board is chiefly to blame for all the faults of the Bedminster Workhouse. The Board were written to more than once, but gave the guardians no assistance—not even a hint, while the report of the inspector was pigeon-holed for months. The revelations of a medical journal seems to have afforded the officials a stimulus to work up that important document, and write to the guardians who were ignorant of its existence.

Oxford is just now agitated by the question of the "Lodging Statute." To those at a distance it seems strange that no agreement can be effected by the parties to this controversy. The most that is desired by the public is to extend University education and University influence. Must those who most desire to educate their sons at Cambridge or Oxford, be sent to London or to Scotland? The best wishers of the elder sisters must desire to see more of the *élite* of English youth sent thither.

We regret to announce the death of Mr. Warrington, chemical operator at Apothecaries' Hall, London, and of Mr. Samuel Smith, F.R.C.S., of Leeds. We have not space at present for biographical sketches of these gentlemen, both of whom have left their mark upon professional chronicles, and each of whom have many zealous colabourers, poorer in friendship for their loss.

A Dumfries wife, last week, presented her husband with four boys at a birth.

We read in a contemporary a story which furnishes a fitting pendant to the above. The death of Dr. Peterson Assistant Editor of the *American Observer*, is described as follows :—

"On Monday, October 8, at a quarter before three o'clock, a citizen of Waterloo called at Dr. Peterson's office, and on opening the door, was horrified at beholding the doctor lying on the floor, in the agony of death, his head in a pool of blood. Near by him was a revolver, with which he had shot himself.

"On a desk was found the following note to his wife :—

"'Waterloo, October 7.

"'My Dear Gus,—Oh, with what feelings do I write this! In five minutes I will be a dead man! I am crazy, and will never be sane again. O, my God, I want to kiss you! My God! "'J. C. Peterson.

"'I die by my own hand. Poverty does this.'

"An epidemic of malignant dysentery had prevailed in his locality, and he had treated one hundred and fifty-seven cases of that disease, working steadily for forty days as he never did previously. For twenty days never going to bed—merely procuring a little sleep while in his carriage. The constant activity of the mind, and denial of natural repose, produced cerebral irritation. The idea of poverty was an hallucination."

Moral Insanity.

The essential controversy is raging between the transcendental psychologists and the common-sense public as to the responsibility of Baker, the Alton murderer, for his fiendish acts, and the usual arguments that his relations were weak-minded, and he appears not to appreciate the full extent of his guilt, are adduced to save him from the penalty.

Surely the issue is not whether the murderer acted against *his own* idea of right, but whether he knowingly infringed the public law. If he knew that he was breaking the law, and appreciated the penalty which follows his crime, what is it to us whether he approved of it in his own judgment?

Public justice is not bound to enter into the consideration as to whether a malefactor concurs in the right to punish him for his offence. It has only to be assured that, having the opportunity of knowing the law and the penalty, the prisoner wilfully committed the offence.

As far as we can learn, there is not a tittle of evidence that Baker did not fully appreciate the whole *gravamen* of his deed, and the motive which the assumption that the unfortunate child was outraged before murder, if true, affords, renders the transaction extraordinary only in respect of its atrocity.

THE CYCLONE IN THE WEST INDIES.

The late frightful hurricane had an axis of repose of five miles radius. In an admiralty despatch by Capt. Vesey it has been described with great precision, and the following is a recapitulation of the phenomena, observed:—"All the elements of violent atmospheric perturbation accompanied the progress of the hurricane—lightning, thunder, hailstones composed of fragments of ice, earthquakes, deluges of rainfall, and a pall of cloud so dense as to produce thick darkness at noonday. The course of the blast was from E. to W., and as the vortex passed slowly over the the doomed islands, the barometer sank nearly two inches. The electricity was so intense as to render the ship's compasses at sea useless.

The barometric oscillations are well shown in Capt. Vesey's despatch. At 9 A.M. the reading was 30·00 in., wind S.S.E. At 9·30, barometer 29·30 in. At 11 A.M. barometer 29·88 in. At 12·15 P.M., barometer 28·60. At 12·30 a lull occurred (the axis of calm having been entered), and the barometer sank to 28·10 in. This was the lowest point, for at 12·50 the barometer turned, and at 5 P.M. had risen to 29·45 in.; wind before the calm was N. by W., after calm S. by E., thus evidencing the action of the opposing segments of the great cyclonic circle.

"Atmospheric perturbation seems to have been very widely distributed about this period, and it is worthy of remark that in England a high tempestuous gale raged from the 27th to the 29th, when it gradually lulled."

Correspondence.

DR. SINCLAIR AND THE EDITOR OF THE "DUBLIN QUARTERLY."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—The correspondence between the Editor of the *Dublin Quarterly Journal of Medical Science* and me having appeared in your impression of the 20th of last month, it is necessary that I should offer a few observations in explanation and reply.

With respect to letter No. 1., addressed by me to Dr. Kidd from Southsea, I have to make the following statements:—I had promised Dr. Kidd, on the eve of my departure for England, early in the first week of July last, that I would let him have my paper for publication in ten days afterwards—*i.e.*, that he might reckon on it in the middle of the month, which would have left ample time for its publication. It was intimated to me that ten days thence would be sufficient time. Finding, however, that private and family matters would detain me in England longer than I had expected, I enclosed letter (No. 1) in an envelope directed to my residence, and ordered that it, together with the MSS., should be left at Dr. Kidd's house on the 15th of the month. It will be seen that in this letter I stated I should be home on Saturday, which fell on the 20th of the month; and that I gave no specific residence, merely stating that I wrote from Southsea, Hants. As, in order to be home on the 20th, it would be necessary for me to leave Southsea in two days after Dr. Kidd had received my note; I did not, of course, expect any reply thereto would be forwarded to England. Had Dr. Kidd desired to communicate with me on the matter, I expected he would wait till my return; or if he deemed very speedy communication with me necessary, I considered it probable he would send his letter to my house with, "to be forwarded immediately" on the envelope. Dr. Kidd, however, for some reason or other, posted the following note to Southsea, Hants!!—

"17, Merrion-square, E., Dublin.
"16th July, '67.

"My Dear Sinclair,—I got your paper this evening, I am sorry it did not come sooner, as I had despaired of you, and gave away the place reserved for you, only yesterday.—I am truly yours, G. H. Kidd.

"I have not been able to read it yet, but I am sorry to see by your note that it is likely to be warlike."

This note being directed to me at Southsea, Hants, of course I did not receive it very soon, inasmuch as, after arriving at Southsea, it had to return to the dead letter office in London, and then to recross the channel in order to arrive at Dr. Kidd's residence. After my return to Dublin I received it with the following endorsement:—

"25th July, '67.

"Dear Sinclair, this has been returned from the post-office. I sent it to the address given in your letter.—G. H. K."

Taking all these circumstances into consideration, and recollecting some observations which had fallen from Dr. Kidd on two occasions when we had casually met and spoken concerning Mr. Phelan's paper, I could not avoid arriving at the following conclusions:—

1st. That an exposure of Mr. Phelan's fallacies and errors would be distasteful to the Editor of the *Dublin Medical Journal*.

2nd. That Dr. Kidd's distaste to anything of this so-called "warlike nature," was rendered more marked by his celerity in giving away "the place reserved for me."

3rd. That he did not desire I should learn my paper was too late for insertion, with any degree of rapidity. A letter with such a vague address as Southsea, merely, was not likely to find me, more especially as I was obliged to be back in Dublin by Saturday the 20th, I must have left Southsea on the second day, at least, after the date of his letter to me.

To continue my story :—Having found that I must wait for

some other impression of the Journal, I re-wrote and re-arranged my MSS., but though I executed a perfectly new copy, the arguments, and what Dr. Kidd calls the "personalities," were identical in each. It is this rewritten MSS. which Dr. Kidd refused to insert in his journal. When it was ready for the printer I wrote letter No. 2 to Dr. Kidd, in reply to which he sent letter No. 3, hoping "that I would remove all expressions that might be considered by Mr. Phelan to be personally offensive," &c. Now, though this applied to my former MSS. which Dr. Kidd had seen, and not to the one I was about to send him, still, I may take it as equally applicable to the latter, both being identical in tone and argument. But in this letter, No. 3, Dr. Kidd not only objected to my tone, but also to my argument! He says:—

"Two other points occurred to me in reading the paper, to which, I hope, you will allow me to direct your attention.

"1st. As to the correctness of the statistics of the Coombe Hospital, would it not be well for you, who are one of the consultants, to inspect the books before you commit yourself to an insinuation, that they are incorrect?

"2nd. Is the amount of bad cases that occur to a consulting accoucheur in large practice a fair test of the average of midwifery practice generally?

"It appears to me your references to these two points require further consideration, but that is for you to decide, at all events I will gladly insert the paper when you remove some of the references to Mr. Phelan."

Now, with respect to these two points to which Dr. Kidd has condescended to direct my attention, I have to state—that in neither MSS. did I even "insinuate" that the Coombe's statistics were incorrect. I was not aware whether such was the case, or the contrary, nor was the knowledge necessary, so far as my argument was concerned. Dr. Kidd was not so anxious that the Rotundo statistics should have been as delicately dealt with by Mr. Phelan.

With respect to the second point to which my attention had been so *kindly* drawn by the Editor of the *Dublin Quarterly Journal*, surely he could not have carefully read my paper. The very point to which he asserts I have not given sufficient consideration, forms one of the chief illustrations of my argument against the reliability of the statistics of home attendance amongst the poorer classes. On reading this letter, what other conclusion could I arrive at than that Dr. Kidd was unfavourably inclined to my paper in every respect. But more than this, I considered his allusion to my being "a consultant to the Coombe," and his hinting that I should inspect its books before "I committed myself," was simply to be regarded in the light of a threat; while his directions to me with respect to the line of argument I should adopt in my paper, was malapert, to say the very least.

The chief question, however, in connexion with this controversy is, the identity of the MSS. to which Dr. Kidd refused admission, and my pamphlet. Two of the leaders in the weekly serials, have led their readers to infer, that had the MSS. contained no more, of what they have been pleased to call personalities than the pamphlet, Dr. Kidd would not have rejected it from his journal. Indeed, Dr. Kidd's own expressions lead to this inference; and I may state that such has been repeated to me in public and private circles. If I can prove that nothing has been removed from the pamphlet which was in the MSS. that could increase the assumed personality of the former, or alter its tone or argument, then it follows that Dr. Kidd ought not to have refused my MSS. On the other hand, if my pamphlet is identical in tone with the MSS., then Dr. Kidd, according to his original assertion, could not have received my pamphlet as it now exists.

I shall now publish the only part of the MSS. which has been left out of the pamphlet, and it will be seen that there has been but one omission as regards Mr. Phelan, which the editor of the Dublin *Quarterly Journal* could have assumed to have been personal. In the MSS., I had the following footnote—"I am at a loss to know what Mr. Phelan means by signing himself an M.R.C.S.L. There is no such title in the Registry. On consulting that public document, for the purpose of correction should I have been mistaken, I was surprised to find that Mr. Phelan was not a legally registered practitioner."

Again—"In effect, he" (Mr. P.) "is nothing more than a clerk to the Board of Superintendence of the Dublin Hospitals."

Thirdly—"In my opinion, the Board of Superintendence has delegated to him" (Mr. P.) "the duties which the Government expected they themselves should have performed—viz., those of supervision and inspection."

Lastly—"A carefully prepared *réchauffage*, such as Mr. Phelan has served up to his readers, in the pages of last February's journal, one would expect, ought to appear before them in a style perfectly unexceptionable from such a *chef;* more especially, as some may attach undue weight to his opinions from the consideration—however erroneous—that he is the mouthpiece of the Board of Superintendence."

Now, the first sentence I rubbed out, because I considered the matter too trivial to notice in the pamphlet, and that it was unnecessary to show that this gentleman was unregistered. Nevertheless, it was a fact he had designated himself illegally, he being unregistered. What should be said of a government official, who, instead of setting an example of compliance with the law, by registering his qualification, especially when that official was in the habit of writing medical papers with the title of that qualification appended to his name?

I removed the sentence that "in effect he was merely a clerk to the Board of Superintendence, because I had clearly and precisely described his duties as a secretary, a few lines above.

I expunged the sentence concerning the Board of Superintendence, delegating to him their duties, because I had nothing to say to that Board, and I might have been mistaken as to their powers. I likewise removed the paragraph commencing "in a carefully prepared *réchauffage*, &c.," because I thought it redundant, having just previously given my reasons why Mr. Phelan should have been *au fait* at his work, viz., because of his having been a Poor-law Inspector, and the statistician to the Board of Superintendence.

I assert that the pamphlet, with the above exceptions, is identical with the MSS. which Dr. Kidd says he had read.

Permit me now to insert two passages which appear in my pamphlet. At page 11 I say, "I should not make this reference" (*i.e.*, to Mr. Phelan's statistics), "were it not that Mr. Phelan so continually presents himself as a censor on medical matters in general, in fact as a general inspector."

At page 31, after exposing the garbling of quotations from another author, I say, "from the mode in which Mr. Phelan *handles* his quotations, one can form some idea as to his *aptitude* for FRAMING reports." I put the words in italics and capitals for the particular attention of my readers.

I think these two quotations from my pamphlet enough to establish the fact, that no passage omitted from the MSS. renders the former less specific as regards Mr. Phelan.

If, then, Dr. Kidd refused my paper on the ground of "personality," when it was a MSS., he could not have received it as it now exists; but Dr. Kidd has given every one to understand that, as it is now worded, he would have published it; therefore I fear Dr. Kidd is perched upon the horns of a dilemma.

There are few MSS. that have not been subjected to alterations after first proof; but I assert that the alterations I have made in mine have not lessened its so-called "personality,' nor would the addition of the sentences which I have just quoted increase in it that assumed element.

The Editor of the *Dublin Quarterly Journal* is safe, so far, in hiding himself under the shelter, that the pamphlet is not an *actual copy of the MSS.* What pamphlet is, in the strict acceptation of the term? But my pamphlet is, nevertheless, essentially identical in every respect with its original MSS.

You, sir, say of my pamphlet, that as it now stands you "should have regarded it as severe, but by no means fatal to my claim for publicity." I now ask you to say candidly, whether the insertion of those sentences which I have now supplied—really not severe, and only one of which is capable of being tortured into what Dr. Kidd calls "personal"—would remove from me the right of that claim?

It would have been well for Dr. Kidd to have distinctly mentioned, or drawn his pencil across the passages to which he objected in my MSS.; instead of, in a vague manner, asking me to soften my tone with respect to Mr. Phelan, and to alter the "first few pages of my paper." The pure ethics of the editor of our national medical journal had admitted, without comment, a *pot pourri* of statistics and incorrect quotations, apparently intended to be one of a series of steps in an attempted destruction of a useful charity (though distasteful to some), and involving an insidious attack against it; while he objected to a reply which detected shallow reasoning; exhibited the garbling of quotations, and exposed the unfair use of statistics.

Now had Dr. Kidd acted, when he first read Mr. Phelan's MSS., as in my opinion he ought to have done, considering his subsequent attempt to quash my paper, he should have thus addressed him—

"DEAR MR. PHELAN,—I shall be very glad to insert your paper

in my next journal, but I hope you will so alter it that it may not appear to be an attack upon the Rotundo Hospital. You will observe that you have brought forward the statistics of this hospital, in your endeavour to prove the baneful influence of lying-in hospitals, and have excluded those of the Coombe in a remrkable manner; yet you must know that the Coombe comes under the same objections; but, moreover, you make it appear that the Rotundo Hospital is chargeable with increasing the immorality of the city. In fact you appear, in this main portion of your argument, reticent concerning the Coombe, and seem to throw all your shafts against the Rotundo. Now as I happen to be an assistant to the masters of the Coombe it would appear, to say the least, odd, were I to print your paper as it now stands, in my journal. The question on which you treat is too important to be decided otherwise than on its own merits, and the demerits of any *one* particular hospital have nothing to say to it—all should be included to obtain truth, and, besides, comparisons are odious. We have never, so far as I know, had a paper in the journal that could hurt the feelings of anyone, and I hope we never shall, so I must beg of you to soften your tone with respect to the Rotundo Hospital. You may say what you like respecting the Coombe and the Rotundo in connection as lying-in hospitals, but in my journal I should not like anything to appear which might be considered as a marked attack upon the latter. I hope your quotations are correct," &c., &c., &c.

Had this been written to Mr. Phelan I could understand Dr. Kidd's tender ethics with respect to my paper, but it was not written, because Mr. Phelan's attack was admitted.

In conclusion, I again assert, that I have not been more "personal," as Dr. Kidd calls it, than the circumstances of the case demanded; and I likewise assert the statement made, "that many things appeared in my MSS. which were irrelevant," is simply not the fact. That others entertain similar opinions I now prove by the publication of the following letter:—

"Dublin, December 2, 1867.

"My Dear Sinclair,—It was at our request that you replied to what we considered an unfair and insidious attack upon the Rotundo Hospital, made by Mr. Phelan (the official of the Board of Superintendence of Dublin Hospitals) in the 85th number of the *Dublin Quarterly Journal of Medical Science*.

"In consequence of some editorial observations on your pamphlet which have appeared in two of the medical weekly serials, we think it incumbent upon us to make the following statements.

"We are thoroughly acquainted with the contents of the MSS. of your pamphlet, and are equally conversant with the proofs of that MSS., and we have no hesitation in asserting that no sentence has been omitted, which could render it less 'personal' than the original MSS.; and, moreover, that it is essentially the same as that MSS., the only difference being the removal of the allusions to Mr. Phelan's titles; any other omissions cannot be construed as of a 'personal' nature. We are also decidedly of opinion that 'there were' not 'many matters in the MSS. irrelevant to the subject' upon which you were writing, and 'calculated to prevent free discussion.' We sanction, with our full approval, *every word* of your original, and we equally approve of your pamphlet.—Yours very truly,

John Denham, M.D., Master, Rotundo Hospital.
George Johnston,
John Cronyn,
W. B. Jennings,
B. G. Guinness,
Thomas Telford,
J. R. Kirkpatrick,
} Ex-Assistant Physicians."

I have the honour to be, sir, your very obedient servant,

E. B. Sinclair.

28, North Frederick-street.

Note.—Dr. Sinclair rightly conjectures that the identity of his MS. with his pamphlet is the important question at issue; but we presume no person can have much doubt about it now, seeing that he himself supplies us with no less than *four* foot-notes, which he admits he suppressed; and which, we must again remind our readers, he said nothing about in his pamphlet. The gravity of these omissions is enhanced by their severe personal nature; and the first of them, if it means anything at all, is calculated (Mr. Phelan's letter in our issue of Nov. 27th to the contrary notwithstanding) to convey no other insinuation than that that gentleman is not a qualified practitioner.

No man has a right to charge another, even by implication, in this way; especially, as in this case, Dr. Sinclair happens to in qualified in surgery just in the same manner as Mr. Phelan; and he must know perfectly well that such is the truth. It is a mere quibble to say that there is no such title as M.R.C.S.L. in the Register. Mr. Phelan obtained the diploma of the Royal College of Surgeons of London, or of England (for the thing is the same) as well as Dr. Sinclair; and is as legally qualified to register; though a cynical critic might discover that "Eng.," and not "L.," is the abbreviation for the legal title of the London College of Surgeons at present.

Moreover, Dr. Sinclair is quite incorrect (and he who makes a charge against another should not be incorrect) in stating of Mr. Phelan, "it was a fact that he had designated himself illegally, he being unregistered." We should like to know does the Rev. Professor Haughton "designate himself illegally," or do several Fellows of Dr. Sinclair's own College of Physicians "designate themselves illegally" because, being unregistered, they venture to append M.D. to their names as he does? The law does not oblige these gentlemen, nor does it oblige Mr. Phelan, to register.

Our readers can best judge for themselves how the pamphlet can be admittedly *not an actual copy*, and yet be "essentially identical in every respect" with the MS.!

Nor is there anything in Dr. Kidd's correspondence to warrant Dr. Sinclair's assertion that the former "has given every one to understand that, as it is now worded, he would have received it."

Dr. Sinclair must allow us to give the quotation in full which he has given only in part as follows:—"You, sir, say of my pamphlet, that as it now stands, you should have regarded it as severe, but by no means fatal to publicity." Now seeing that he accused Mr. Phelan of giving part of a quotation as the whole, and thereby altering the sense, we append what we wrote and meant in our issue of Nov. 20th:—"In our opinion they [the grounds of Dr. Kidd's refusal] were so [*i.e.*, sufficient], and the editor of the *Dublin Quarterly Journal* was justified in the course he adopted. The character of the journal he conducts is, we think, sufficient justification. We ourselves should have regarded Dr. Sinclair's strictures as severe, but by no means fatal to his claim for publicity."

In conclusion, we have only to repeat (what all literary men know to be a rule in letters): that any document which professes to be *identical* with another should be so *verbatim, literatim, et punctatim*. There is no literary accuracy, or in some cases literary honesty, without this.

Perhaps we may be pardoned drawing attention to the inaccurate use of the plural for the singular number in this correspondence. Several excellent practitioners, and learned Bachelors of Arts, write of "that MSS." (that manuscripts); and otherwise use MSS. (manuscripts) for MS. (manuscript).—Ed. M. P. & C.

SCARBRO' AS A HEALTH RESORT.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—As your attention of late has been so much directed to the very important subject of drainage, and the claims of the different sea-side places as health resorts, perhaps a few remarks on the advantages of Scarbro' may not be uninteresting to many of your numerous readers, as I think it stands unrivalled for at least nine months out of the twelve, and is justly termed the Queen of Watering Places. The general healthiness of Scarbro' and its suburb, Falsgrave, is secured by various causes—the peculiarity of its position, sheltered North and South by lofty hills, its winter climate is always milder than the latitude would lead one to expect; although the easterly winds in the spring are found severe close by the sea, yet within a mile, in the neighbourhood of Falsgrave, which is completely sheltered from its effects, their influence is almost unfelt, and it is possible for an invalid to enjoy, in the cold months, an uninterrupted mild climate, by a residence in this locality, with a south aspect, when during the rest of the year the cool, dry, bracing air of Scarbro' bears a great resemblance to that of the northern coasts of Devon and Wales, in its invigorating influence on the nervous system. As has been stated by Dr. Granville and several other authorities, there is only a fractional difference between its mean annual temperature and that of the British Isles, that its summers are cooler, and its winters warmer than in the United Kingdom generally, and that its annual rainfall is small in quantity, and the number of its rainy days is comparatively few; so that the inhabitants of this highly-favoured town may congratulate themselves on possessing an atmosphere which contains only a healthful amount of humidity, and marine air is well known to be more highly oxygenated, more equable in temperature, and, owing to a constant agitation by breezes, purer than

that of inland places; and the freedom enjoyed by Scarbro' from the oppressive and sultry heat of summer, and the intense cold of winter, is also due to the proximity of the German Ocean. The sea is a great reservoir, where the heat of the former season is accumulated, to be subsequently restored to the land on the approach of the latter period of the year. It has also been shown by the late Mr. Dunn, a medical practitioner here, that consumption, *the great scourge* of this as well as other countries, is less frequent in Scarbro' than throughout the kingdom in general, and that he found the prevailing winds to be from the west and north-west. In addition to the natural advantages of Scarbro' as a permanent residence, no expense has been spared to provide most efficient drainage, the main drains being the finest in England, full advantage having been taken of the elevated ground to produce a torrent in its discharge, which is into the sea, at a distance from the town, only to be conceived by those who have seen it after rains. In addition to the number of large houses now on the south cliff, and in Falsgrave, being all of modern erection, the connecting drains are constructed on the best principles, and the purity of the atmosphere is preserved. I see the deaths from consumption in the Scarbro' district, as given in the Registrar-General's returns, are less for a series of years than those in the whole Isle of Wight, as furnished in the same record, a further convincing proof of the mildness of the climate in winter and spring, those seasons most fatal to consumptive patients. When to this is added the open-air attractions, superior music for two hours twice daily in the spa-grounds up to Christmas, the opportunities for boating, bathing, with horse and carriage exercise on the broad sands and the numerous delightful rural walks within easy access, since the erection of the new valley bridge, and the carriage road which leads under it, the whole length of the plantation down to the sea shore; the mind of the invalid is, as it were, cajoled away from its sufferings, and that hopeful tone is produced which the medical man always recognises as the most powerful adjunct to any natural or artificial treatment needful for the restoration of health. I should also mention that its present hotel accommodation is unequalled at any other watering-place in England.

By the way, I may here state that I am not favourable to the establishment of large hospitals for consumptive patients; they of all others require a residence in a healthy atmosphere, and that of an uniform temperature, in the winter and spring months more especially, say from 60 to 65 Fahr., which is best obtained by the humbler classes, in isolated comfortable cottages, in a south aspect, with generous diet, warm clothing, and the appropriate medical treatment. But for the affluent and wealthy, instead of sending them from a comfortable home, often to die in some foreign land amongst strangers, and away from home comforts and the society of their nearest and dearest friends, my plan has been for such, for many years, to select two large rooms, at least, with a south aspect on the second floor from basement, the temperature of each being regulated by an accurate thermometer, placed in each room, so that the sleeping apartment may be exactly of the same temperature as the room left, day and night, thus avoiding, in a great measure, the often distressing night cough. By due attention to this almost inexpensive plan, the patient is able to enjoy the society of his friends and partake of many of the amusements, for a year or two, when the disease will often, by judicious and appropriate treatment by his own medical attendant, become arrested for a great number of years with proper care, &c.

One of my patients, æt. 50, called upon me this summer, who had been treated in this way for a period of three years (now fifteen years ago), but now in perfect health, and has had little or no medical treatment since that time, when she had all the symptoms of incipient phthisis, having lost most of her relations from that disease when first placed under my care. I am glad to find that our Grand and other large hotels in Scarbro', as well as in many other places, have now taken this hint, and have adopted all the recent improvements to diffuse heated air, of any required temperature, with sufficient moisture, so as to produce the climate in winter and spring we so much require for the invalid. Winter gardens, large conservatories, adjoining our houses, for invalids to walk in during sunshine in the spring, cannot be too much patronized. For the sportsman in winter, foxhounds are kept in the neighbourhood.

Scarbro' has an abundant supply of pure spring waters from out the Cliff at Cayton Bay, about two miles from the town. It is pumped up by an engine into a reservoir, to such an elevation that, by its pressure, it supplies the town, being conveyed direct in iron pipes, hence there can be no contamination of the waters from any source. While on the subject of drainage generally, one of the main difficulties local boards have to contend with, in most towns, after the construction of main drains (no matter how perfectly) is the carelessness of the owners of property in connecting the house with the main. In many cases, although the main drain is within a few yards of the house, they are totally unconnected, and the drainage of the house finds it way off through some old drain near, or on the surface, or possibly soaks through the floor of the lower rooms, causing a continual offensive smell to any one accustomed to live in a pure atmosphere; and even when connected, especially in cottage and other property of low value, but in which the crowded habitations of the poor are often situated, the connecting pipe is not provided with a stench trap, and while the drain carries off the refuse of the house, it also acts as a conductor of the deleterious gases, engendered in the main drain, and the dwelling becomes saturated with an impure atmosphere. It will be seen, therefore, how important it is to attend, in the first instance, to the ventilation of main drains themselves, by chimneys carried to a considerable height, and of securing the total exclusion of gases through the connecting pipe, by always sealing it with the simple contrivance of a stench trap, and when such precautions are neglected, the inhabitants are certain to suffer more or less from zymotic disease. I would also strongly insist in all large towns on the coast, *where it is practicable*, that instead of the sewage being conveyed direct into the sea, it would be much more desirable to have it conveyed in pipes clear of the town, into cess-pits, where it might be filtered, and deodorised by a chemical process, the clear portion either used for irrigating the adjoining land, or find its way into the sea miles away from the town, the solid residue being mixed with soil, ashes, or road scrapings, &c., which forms good manure, and to which the land is justly entitled. Much has been said of late in favour of earth-pits, but I consider they are only applicable to small towns, in rural districts.—I remain, sir, yours faithfully,

M.D.

Scarbro', Dec. 6, 1867.

SEA-SIDE DRAINAGE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The article in the MEDICAL PRESS AND CIRCULAR of Dec. 4, on "Sea-side Drainage," is so likely to lead the uninitiated to a false conclusion on the subject, that I shall ask you to give me space for a few remarks. Believing, as I do, that this and similar accounts committed to record carelessly, or through ignorance, are calculated to prejudice the public, and to render Worthing, and other places similarly situated, unpopular, it becomes almost a duty to add to your "communicated article," certain qualifying remarks.

I have never been at Worthing, and, therefore, must accept the statement that the fresh-water well and the sewage reservoir are relatively situated as described, a disposal of the works that I have no doubt was mainly influenced by motives of economy, and in order to obviate the necessity of a second set of engines and pumps. As a satisfaction to the public, who are ever too credulous, it would probably have been better had the well and the reservoirs been placed farther one from the other, but regarded from an engineering point of view, there will be nothing to cause apprehension. There is no difficulty, whatever, in rendering sewage reservoirs absolutely watertight, and even assuming this to be a matter of uncertainty or impracticable, the well in the chalk could easily be so constructed as to exclude rainy drops of water that would otherwise pass into it from, or from any given distance below, the surface of the ground. Wells for the supply of drinking water are in fact almost invariably so constructed that the supply is derived only from the lowest part of the boring.

With regard to the utilization of sewage by irrigation as practised at Worthing, I will merely quote from the report of the Rivers Commissioners, with whose conclusions the public may rest satisfied. They say first that, "at Worthing we found the sewage works, which have now (1866) been in operation for more than a year, unobjectionable. Not a single case of sickness was attributed to the irrigation;" and further in reviewing the matter in its financial bearings, the Commissioners say, "At Worthing, part of the sewage, from a population of about 9000 persons, was applied last year to 25 acres of land. The value received for the produce was £645, or about £25 16s. per acre. The expenses incurred were £229, or at the rate of £9 3s. per acre, leaving a balance of £16 13s. per acre."

It is certainly not a correct statement, that land irrigated with town sewage can be utilized for the cultivation of Italian

rye grass only. This grass, when a ready market can be found, is one of the most remunerative crops that can be cultivated, giving, under ordinary circumstances, as much as 50 tons per acre; but other crops, such as mangold, and most of the vegetables used in domestic consumption, are now grown at Croydon most advantageously with sewage irrigation. Further I may state that it is by no means necessary that the Italian rye grass must be eaten green; for, as a matter of fact, large quantities of it are made into hay at Croydon and elsewhere.

One of the main advantages of sewage irrigation is that it *does not* create a marsh, though this objection may fairly be urged against the system of warping land. The sewage is allowed to *run* over the surface of the ground for a few hours only at a time, and from first to last neither suffers nor produces the same kind of decomposition that makes marsh land unhealthy. When sewage is properly utilized not more than three or four hours will elapse between its creation and the time of its passing off the land purified. It is, therefore, an error to assume that this kind of irrigation produces either a marsh or any of the diseases induced by miasma.

Touching the presumption that streams are to be vitiated by the water that passes away from irrigation fields, I will only observe that the stream of sewage water, as it leaves the Beddington Farm at Croydon, is actually purer than much of the water now supplied to the metropolis for drinking.

The article in your journal invites the correction of its *minor errors*, but I trust I may be pardoned for addressing myself to its broad and unequivocal assertions, and leaving the *minor errors* to take care of themselves.—I am, sir, yours, &c.,

ARTHUR JACOB, Junr.

INERT ACTION OF ERGOT, DURING THE LATTER MONTHS OF PREGNANCY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In answer to your correspondent, "Cordyceps Purpurea," on the above subject, I beg to state that I am perfectly serious in making these statements, that ergot administered to a woman seven or eight months pregnant, "neither induces labour nor exerts any injurious effects on the child," and in confirmation of it, would refer him to a paper on the subject, read by Dr. Denham, Master of the Rotundo Hospital, before the Midwifery Section of the British Medical Association at their recent meeting in Dublin, which I suppose is published in the journal of the society. The toxic effects of ergot are now denied by most of the members of the Dublin School of Midwifery, its injurious effects when produced being ascribed to the mechanical hindrance it offers to the fœtal circulation, the spasm produced by ergot on the uterus being continuous in contradistinction to the intermitting action of that organ in its natural state. In the paper referred to, your correspondent will find many cases which bear out the statement that ergot neither induces labour nor produces any injurious effects on the child, in particular the case of a young woman named Doyle, pregnant for the first time, admitted to hospital when seven months pregnant, who took from time to time one ounce and a half of ergot, but who went to her full time, and was delivered of a healthy male child. The cases experimented on were not in any way selected, they being women admitted to hospital not in labour, some of them primipora, others multipira. I do not deny that, when administered during the second stage of labour, ergot will produce injurious effects on the child, but such effects are then due, as I before said, to the mechanical hindrance produced by the tonic contraction of the uterus. The preparations of ergot used, were the frish powder and the liquid extracts of the British Pharmacopœia, both obtained from the establishment of Messrs. Bewley and Hamilton, one of the first in the city.—I am, sir, your obedient servant,

THOMAS TELFORD, M.D., F.R.C.S.I.

28, Clarinda Park, Kingstown.

Medical News.

UNIVERSITY OF CAMBRIDGE, DECEMBER 12.—NATURAL SCIENCES TRIPOS.—*Examiners.*—George Murray Humphrey, M.D., Professor of Anatomy, Downing College; Osmond Fisher, M.A., Jesus College; George Henslow, M.A., Christ College; Philip Thomas Main, M.A., St. John's College.

First Class.—Murray, Corpus; Brailey, Down; Eaton, Trin.

Second Class.—Ward, Caius; Page, Christ's; Douglas and Anningson, Caius; Wanklyn, Sidney.

Third Class.—Aikin, Trin.; Duthie, Jesus; Reid, Trin.; Shaw, Caius.

The undermentioned degrees were conferred:—

M.C.—George Wilks, Trinity.

Bachelors of Medicine.—George Wilks, and John Penn Hartree, Trinity; John Thompson Dickson, St. John's; Oswald Henry Foster, Caius.

CAIUS COLLEGE.

DEATH OF THE REVEREND THE PRESIDENT.

The death of the Rev. Hamnet Holditch, M.A., Senior Fellow and President, took place on the 12th inst., after a long illness. Mr. Holditch, who was about 68 years of age, took his degree in 1822, when he was Senior Wrangler and First Smith's Prizeman.

NATURAL SCIENCE.—Mr. N. Moore, who was second in the examination for the Downing Scholarship for Natural Science, held in June last, has been made Librarian Scholar of St. Catherine's College. The value of the scholarship is about £30 per annum, tenable for twelve years. The subject for which Mr. Moore showed greatest proficiency in the examination was Comparative Anatomy and Physiology.

UNIVERSITY OF LONDON.—The following candidates passed the late M.D. examination:—*John Thomas Arlidge, B.A., King's College; *Stephen Wootton Bushell, Guy's Hospital; Henry Carnley, Hull and East Riding; Thomas Marsden Edwards, Andersonian Institution; Henry Isaac Fotherby, Guy's Hospital; Ralph Gooding, B.A., King's College; George Wallington Grabham, St. Thomas's Hospital; John Pearson Hughes, University College; Charles Kelly (gold medal), King's College; Henry Colley March, St. Thomas's Hospital; *Frederick Barham Nunneley, University College; John Jones Phillips, Guy's Hospital; George Henry Savage, Guy's Hospital; *Thomas Claye, Shaw, B.A., King's College; Paul Henry Stokes, B.A., Guy's Hospital; *John Williams, University College.

* Obtained marks qualifying for gold medal.

At a meeting of the friends and sympathisers of Mr. Statham, held at Mr. E. Saunders, 13a, George-street, Hanover-square, on Monday, December 9th, Mr. Samuel Cartwright in the chair, an Executive Committee was appointed to organise a subscription to defray Mr. Statham's expenses, consisting of the following gentlemen:—Mr. Samuel Cartwright, Mr. W. A. Harrison, Dr. Cholmeley, Dr. Richardson, Mr. Edwin Saunders, and Mr. Charles James Fox. The fund progresses well. Subscriptions may be sent to Charles James Fox, Esq., 27, Mortimer-street, Cavendish-square, W.

Dr. H. C. Bastian has been appointed Assistant Physician to University College Hospital, and Lecturer on Pathology at the College.

We regret to announce the death, on Thursday evening, of the well-known Dr. Daubeny, of Oxford, which took place at the Botanic Gardens.

THE Medical Society of the College of Physicians, Ireland, will meet to-day (Wednesday 18th.) Communications:—Dr. Hayden, "A case of Multiple Abscess of the Liver." Dr. Moore, "A case of Hespes Zoster." Dr. Law, "A case of Myocarditis."

DR. ABBOTT SMITH, in his notes on "Glycerine," published in the July number of the *Technologist*, calls attention to Price's "Solidified Glycerine." As the manufacture is quite a new one, and so largely used in various forms for cutaneous diseases, we quote his own words on the subject:—"Whilst writing upon the subject of cosmetics, I should do an injustice were I to omit reference of Price's solidified glycerine. For some years past the knowledge of the valuable properties of glycerine, when applied to the skin, has led to a demand for this substance in combination with soap, and this demand has led to a corresponding large manufacture of so-called 'Glycerine Soaps,' but of these many have scarcely any glycerine at all in their composition, and others contain such impure rancid glycerine as to render them unfit for use." Messrs. Price and Co. have now succeeded with a method of incorporating glycerine with soap. One-half of the preparations to which the name of "Solidified Glycerine" has been given consists of pure glycerine; it is perfectly free from excess of Alkali and from cocoa-nut oil, and possesses, to a marked extent, all the properties of glycerine itself when applied to the skin.

A. Bruce, F.R.C.S., has been appointed Assistant-Surgeon to the Westminster Hospital, vice Mr. Henry Power resigned.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, only on one side of the paper, and *must be* in the hands of the Printer eight days previous to their appearing.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

We have to apologise to several supporters for the delay in the appearance of papers, letters, &c. Many are in type, and will appear forthwith. Those not answered this week, will consider their communications accepted.

Dr. Charles Kidd, Sackville-street, London.—Your failure to establish any legal claim against the Proprietor of this Journal ought to have taught you that nothing is due to you either in law or honour; and as the course you have adopted of anonymously slandering those who decline to be bullied, has placed you outside the claim of compassion, we decline any further communication with you except through our Solicitor.

Condy's Fluid.—A Correspondent thinks our method of reporting the fact that a medal had been granted to Mr. Condy unsatisfactory. We inserted it just as we received it from a gentleman in whom we have implicit confidence. We thought that the mention of such an honour would be grateful rather than otherwise to anyone who has used Condy's fluid.

M. D., St. And.—Each of the papers you write about will appear in our columns. All the proceedings will be published in the "Transactions" the Association intends to issue.

Scotus.—Thanks for your efforts. We spare no pains to make the journal acceptable. We are glad to hear that your neighbours are interested in it. Subscribers continue to increase.

Dr. Crisp's request shall be complied with.

A. S.—The case cannot appear next week, but shall have early insertion.

Cantab.—You will see the subject is noticed in this number.

In Vino Veritas.—See the Report on Wine, it replies to every objection named, and will furnish you with all the facts you require.

Auctor.—The book has not been received, and so could not be noticed. The pamphlet was reviewed in our columns last year.

E. Jones.—The articles on Sea-side Drainage, as you divine, are not all by the same author. Probably Eastbourne. See Dr. Hayman's letter in a recent number of the Medical Press and Circular.

J. C.—The question will be considered in a series of articles by a first-class author in our next volume.

Mr. Cleaver.—We trust the introduction you have so kindly volunteered, will be successful.

Mr. W. Bentley.—The particulars will be of great assistance in our investigations, on the sewage question.

F. S. E.—We cannot furnish you with the address until the publication of the Medical Directory for 1868. He has removed three months since.

BOOKS AND PAMPHLETS, &c., RECEIVED.

The Bath Waters in the Cure and Relief of Chronic Diseases. By James Tunstall, M.D., M.R.C.P. London: John Churchill and Sons.

On the Climate of Sidmouth. By Dr. J. Ingleby Mackenzie. London: John Churchill and Sons.

The Medical Investigator. Vol. V. No. 51.

Report of the Metropolitan Board of Works. 1866-7.

New York Medical Journal for November.

Journal de Medicine. Paris.

The Diagnosis, Pathology, and Treatment of Diseases of Women. By Graily Hewitt, M.D., F.R.C.P. London: Longmans, Green, and Co.

Cottage Hospitals. By E. G. Waring, M.D. London: John Churchill and Sons.

Cassel's Popular Educator.

Hardwicke's Science Gossip.

On State Medicine in Great Britain and Ireland. By Henry W. Rumsey, M.D., F.R.C.S. London: Wm. Ridgeway, Piccadilly.

Glasgow Medical Journal.

The Pharmaceutical Journal.

Monthly Homœopathic Review.

Handbook of the Sphygmograph. By J. Burden Sanderson, M.D., F.R.S. London: Robert Hardwicke.

The Argosy for December. Delhi Gazette. Hastings News. Greenwich Chronicle. Hastings Observer. Wellington Independent. Spectator. London Review. Public Opinion, &c.

MARRIAGE.

Brown—Moss.—At Caldbeck Church, Cumberland, on 7th inst., by the Rev. James Twhaytes, William Brown, Esq., L.R.C.S.E., Hesket, New Market, to Matilda Ann, third daughter of the late Lieutenant George Moss (of the 8th West India Regiment), Hesket, New Market, Cumberland.

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DISEASES OF THE EYE AND EAR.

DR. ARCHIBALD H. JACOB will Deliver, during the present Session, a full Course of Lectures on the Diseases of the Eye and Ear, and the Operations necessary for their Treatment, at the City of Dublin Hospital.

Apothecaries' Hall of Ireland, 40 Mary-street. The following new Medicines and Preparations are manufactured in the Laboratory on the premises, and a supply constantly on hand:—

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SURGICAL SOCIETY OF IRELAND.

THE Meetings of the Society for the Session 1867-68 will take place at the Royal College of Surgeons, on the undermentioned Evenings, at half-past Eight o'Clock precisely:—

1868—Friday, 3rd January.
,, Friday, 17th January.
,, Friday, 31st January.
,, Friday, 14th February.
,, Friday, 28th February.
,, Friday, 13th March.
,, Friday, 27th March.
,, Friday, 17th April.

Members who intend to read Papers or make communications before the Society are requested to inform the Secretaries, in writing, of their intention a few days previously.

Discussion on any communication is not permitted unless the writer calls for it or desires it.

When the Contributor of a Paper wishes that the Secretaries should read it to the Society, he will please forward it to them some days before the Meeting.

Except under special circumstances, no Member can be permitted to occupy the Meeting in reading a Paper, or making an extempore Communication, for a longer period than half an hour; and the Society will not be held responsible for any opinions advocated in the communications. Neither can a Member be allowed to speak for more than once, or for more than ten minutes, during a debate relative to a communication.

The communications become the property of the Society, for publication in its proceedings.

The exhibition of recent morbid specimens is allowed precedence of all other communications; but a specimen cannot be considered a recent one unless it has been removed from the body within the fortnight immediately antecedent to the Meeting. The exhibitors of specimens are allowed ten minutes for the description of each specimen, the expiration of which time is announced by one of the Secretaries ringing a bell.

Each Member of the Society, being a Subscriber of 5s. to the Refreshment Fund, is entitled to as many tickets for visitors as he may require, at 6d. each.

Naval and Military Surgeons are admitted as Honorary Members of the Society on sending their names to the Secretaries.

None but Physicians or Surgeons are admitted to the Meetings of the Society.

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Original Communications.

ON TUBERCLE IN MAN AND THE LOWER ANIMALS.

By Dr. EDWARDS CRISP.

(Abstract of paper read at the General Session of the St. Andrews Medical Graduates' Association.)

DR. CRISP read an essay on tubercle in man and in the lower animals in relation to the supposed zymotic nature of the disease. The paper was illustrated by drawings, wax casts, and numerous fresh specimens of tubercle. The specimens and drawings exhibited were intended to refute the statement lately made by M. Villemin, in his recent work on phthisis,* that, with the exception of the monkey, the cow, the rabbit, and a few other rodents, that tubercle was not found in the lower animals. Dr. Crisp said that his drawings and preparations showed it in more than a hundred different species of mammals, birds, and reptiles; and he believed that there was scarcely a vertebrate animal in existence (with the exception of fishes), in which tubercle might not be produced by a vitiated atmosphere, bad food, and other unnatural conditions. Many specimens of false or virminous tubercle were exhibited, as well as examples of contagious tubercle in serpents, which the author said he was the first to notice. Statistics of the deaths from phthisis in man were quoted in various parts of England and other countries, and the frequency or non-frequency of phthisis in certain localities, formed a remarkable contrast; thus in the thirty-six metropolitan districts, the rate of mortality, according to the population, ranged from 27 to 61, the inhabitants of Hampstead being far less subject to tubercle than those of any other metropolitan district. The subjoined were the author's conclusions:—

1. That the evidence we have at the present time does not warrant the assumption that tubercle in man is a contagious or zymotic disease.

2. That the above conclusion is strengthened by the abundant evidence we possess of its hereditary nature, and by the fact that, with the exception of syphilis, no zymotic disease, or tendency to disease, is transmissible from parent to child.

3. That all zymotic diseases observe certain phases of progress and decline.

4. That ordinary pulmonary tubercle is of uncertain duration, and may often be arrested in its early stage by change of climate and by medicinal and hygienic measures.

5. That tubercular deposit may be produced in man and in the lower animals (mammals, birds, and reptiles), by a vitiated atmosphere, bad diet, a change of temperature, and other unnatural conditions.

6. That all deposits or growths of tubercle in man and in the lower animals (whether milliary or caseous), are preceded by an inflammatory or hyperæmic condition, and that as far as my examinations have gone they commence generally in the connective tissue of the air-cells.

7. That tubercular affections in the lower animals (mammals, birds, and reptiles) in confinement are very common, as shown by the numerous preparations and drawings exhibited, and that they differ materially in their nature and seat from those in the human subject.

8. That in the inferior animals the liver and spleen, as well as the lungs, are often affected, whilst, in man, the disease in the two former viscera is comparatively rare.

9. That this deposit in the lower animals, especially in birds, is of a more uniform shape, of a more solid consistence, and contains a large amount of cretaceous matter; that large cavities are but rarely met with in the lungs, and that bloody, purulent, cutaneous, and other exhaustive discharges, are absent.

10. That as I stated, many years since, many specimens of tubercle in the lower animals, as in the examples of rabbits and sheep on the table, have a verminous origin.

11. That I have met with many instances in the inferior animals showing the hereditary nature of tubercle.

12. That the production of tubercle, or something allied to it, in the rabbit by inoculation, requires to be tested by a larger and more varied amount of experiment, before we can arrive at positive conclusions.

13. That, looking to the evidence I have given respecting the supposed origin of some cases of tubercular peritonitis, the effects produced by inoculation, and especially to the fact, that one form of tubercle, as I believe, in the serpent is contagious, it behoves me to speak somewhat guardedly respecting the non-contagious nature of this disease in man. That the question is one that yet requires much patient labour and research.

* Etudes sur la tuberculose preuve rationelles experimentales de sa specificicité et de son inoculabilité. 1867.

CASE OF PLACENTA PRÆVIA.

RAPID EXPULSION OF PLACENTA, AND MEMBRANES ENTIRE.

By J. SMITH, M.D., M.R.C.S.

(Reported to St. Andrews Medical Graduates' Association.)

ELLEN M., of Warrington, aged 37 years; has been married 18 years, and has had ten children and two miscarriages. She has always had rapid deliveries, her medical attendant never having been present at the birth of the child, except in one instance. She is a spare, middle-sized, dark-complexioned woman, of very active habits.

On the evening of Wednesday, July 10th, 1867, she requested my attendance. She had been seized with profuse uterine hæmorrhage, and sent for me in great alarm. On inquiry, I ascertained that she was in the eighth month of utero-gestation. The hæmorrhage had ceased when I arrived, and did not recur till the day but one following (Friday). I then made an examination. There was no dilatation of the os uteri, nor were there any uterine pains. Slight discharge continued during Friday night and the whole of Saturday, and as she seemed restless and excitable, I gave her a full opiate at bed-time. I saw her again on Sunday, at a quarter-past twelve at noon. She had passed a quiet night; had had scarcely any pain, and very little discharge. She appeared to be in good spirits, and expressed herself as feeling much better. At twenty minutes to one I was hastily summoned, and was at her bedside in three minutes. She was lying on her back, and on examining, I found in the bed, and between her thighs, the placenta and membranes entire, the placenta being rendered convex by the pressure of the child's head against it. I at once ruptured the membranes, and the child began to cry.

Mrs. M. told me that soon after I had left her at a quarter-past twelve she had been suddenly seized (during the absence of the nurse from the room) with a violent pain in the belly, that continued for two or three minutes. By one strong expulsive effort the uterus completely emptied itself, the placenta, the membranes, and their contents being discharged in one entire mass.

My patient recovered without a single bad symptom, and mother and child are now quite well.

This case is interesting.

First—On account of its satisfactory termination, mother and child both being saved.

Secondly—Because of the rapidity of the process. It did not occupy more than two or three minutes.

Thirdly—In its medico-legal aspect.

COMPOUND FRACTURE OF THE SKULL, WITH LOSS OF A PORTION OF THE SUBSTANCE OF THE BRAIN.

By GEORGE CROKER, M.D., F.R.C.S.I.

JAMES GIPSON, æt. 19, carter, in the employment of the Marquis of Downshire, of strong, healthy appearance, the youngest but one of eleven brothers, all of whom are living.

July 9th, while driving a horse and empty cart, in which he was standing, the horse became restive, and kicked in the forepart of the cart, getting his hind legs right in; Gipson, having lost his balance, fell with his head towards the horse's heels. After a short distance the horse fell; just at this time some men came to Gipson's assistance, and found him lying with his head towards the heels of the horse, which at this time was struggling. They at once lifted him out, and laid him on the ground. Ten minutes elapsed before I saw him. He was then rolling about, complaining bitterly of pain in his right shoulder and arm, and not at all of the head. On examining the arm there was no apparent cause for all this pain. One of the men who assisted in lifting him had several pieces of medullary substance on his coat sleeve, and also in the cart where his head lay there was more. The hair being cut, and part of it shaved, two small wounds were to be seen on the upper and fore part of the right side of the head; they were between three and four inches apart, and corresponded with the cocks on the horse's shoe.

Having introduced a probe into the front one, it passed easily down for more than two inches, giving evidence at the bottom of a depressed fracture.

The two wounds were thrown into one by a blunt pointed bistoury. The scalp had been separated from the skull for some distance round. The flaps were easily drawn to either side. The blood being cleared away, large pieces of the skull were seen imbedded deep into the substance of the brain. On rising one piece which was altogether unattached, there at once came up a large gush of blood. This, after a little time, subsided, and, when cleared away, the brain and its membranes, &c., could be seen very extensively lacerated and deep. The bone which was removed is two and half inches long, by inch and half, at the broad side, and at the narrow end nearly an inch. The other depressed bones were denuded of the periosteum for about two square inches, but adherent to the scalp over the right temple. They were raised up by an elevator, and placed in as close apposition as it was possible; nevertheless, their tendency was to fall down. It may be worth mentioning that the brain appeared not to fill the cavity of the skull, as when all was cleared off, the handle of a scalpel could be passed easily between it and the cranium, round the part that was visible.

The wound and surrounding parts having now been cleaned, it was dressed with a pledget of lint and cold water. The man was then put on a stretcher and carried home, a distance of nearly two miles.

His after treatment was keeping him in a dark room, and putting him as quickly as possible under the influence of mercury, by small doses of calomel and James's powder every two hours, applying large quantities of ice to the head, occasionally the use of a turpentine enema.

He had no bad symptoms for some days, the circulation very little disturbed. About the sixth day he became restless and wandering; this lasted for three days, when he began to complain of severe pain in the right shoulder and arm, which became partially paralysed; this continued for four days, and then the pupils became dilated, and his sight almost gone, particularly in the right eye. Small portions of medullary matter were now and then thrown up from the wound.

From the twentieth day after the accident he began gradually to improve. All bad symptoms appeared to have left him, and he was able to sit up a little in a fortnight after. This state of things went on every day; he gained strength quickly, and was able to resume his work the tenth week, suffering little or no inconvenience.

The wound cicatrized perfectly over, leaving a deep furrow about five inches long and two wide along the side of his head, the deepest part being about two-thirds of an inch.

In this case, it is remarkable to what extent the brain, its membranes, and vessels, can ever recover from the effects of such an injury, and how nature, with a little assistance, can accommodate all those parts to again work in unison, and repair such a breach without any impairment to mind or body.

DESCRIPTION OF AN INSTRUMENT FOR THE TREATMENT OF ANEURISMS BY ELASTIC PRESSURE.

By GEO. CHARLES COLES.

Most surgeons, I believe, are agreed, that pressure is by far the most successful method of treating this class of cases, and decidedly attended with the least risk to life, but the difficulty arises in the application of this pressure, and for the following reasons:—

The various forms of tourniquets and other instruments for pressure that have been devised from time to time, no matter how perfect they may seem, or where the aneurism be situated, these difficulties are sure to present themselves:—

Firstly—Of controlling the vessel efficiently and continuously, for the least movement the patient may make is sufficient to displace the instrument. For example, if it be a carotid aneurism, the mere act of respiration or deglutition will displace it, the artery being a small, rounded, elastic cord, any muscular contraction will immediately cause a fixed instrument to glide to either side of it.

Secondly—When fixed round a limb they cause the venous circulation to be impeded, and thus cause swelling of the limb, and pain and inconvenience to the patient.

Thirdly—Other instruments have been invented but found unsuccessful, because they are formed of non-elastic materials. For instance, Erlich's compressor, which consists of an almost cylindrical steel bar, passing at the one end through a thick handle (cross-piece) made of black ebony, at the other end is fixed, by means of a plate, a pin made up of a number of turns, upon which the part for compression is screwed. This is finished off in an oval manner, is shorter and weaker than the handle, also made of ebony. Taking the handle, you now place the part by which the compression is to be applied, upon an arterial trunk of the extremities, as in compressing the artery of the thigh below Poupart's ligament.

Therefore, the only pressure at present that can be relied upon, is digital pressure, but unfortunately this requires some one who has been accustomed to it, and then, again, no one can keep up a steady uniform pressure for longer than fifteen or twenty minutes at one sitting. Again, the frequent changing which is necessary, causes the skin to become excoriated, and then cannot be resumed until this is healed, which incurs great delay in the treatment, and, perhaps, more serious consequences. Now, all these difficulties are obviated by the use of an instrument which I have devised. It can be used by any one, even the domestics in a family, if the surgeon will, first of all, indicate the spot on which he wishes the pressure to be applied by means of a pen. It consists of a trephine handle, to the centre of which is fixed a stem, composed of three cylindrical pieces, which fit into each other, the upper two of which each contain a spring, the lower one is solid, and has attached to its extremity a small screw; at an obtuse angle to this screw, several small pads of different sizes can be fixed. These pads are made to resemble the curved extremity of the last phalanx of the thumb; they each have a small plate of brass, in the centre of which is a female screw. The interior of each is composed of equal parts of horse-hair and wool, and the whole is covered with kid. By placing this pad on the vessel to be compressed, and holding the handle in the palm of the hand, any amount of pressure required can be obtained, and it can be changed from one person to another without the slightest intermission, which cannot be done when digital pressure is applied, and by this means a steady, uniformly, elastic pressure, for any possible length of time. This instrument is made by Mr. Ernest, of Charlotte-street, Fitzroy-square. I trust that this little improvement may be found of

service to the profession generally, where pressure is indicated.

BRIEF SUGGESTIONS AS TO THE BEST MODE OF TREATING EXTENSIVE BURNS AND SCALDS.

By T. PUREFOY, M.D., Lucan.

WHILST lately perusing an extract from a Continental journal, recording the last moments of the lamented Princess Matilda—who died from the effects of a severe burn—and closing with the remark that her last moments of suffering were soothed by the aid of a bath, I was thus forcibly reminded of a conversation held some years ago with an esteemed hospital physician in Dublin.

The subject of conversation was the best mode of treating extensive burns, however induced, and I then stated my full conviction that "the bath" afforded the surest source of relief to pain and suffering, and also the most likely means of preserving life.

Accident, and observation, led to these conclusions, the correctness of which my friend, Dr. Benson, did not question, but he seemed to think that my mode of treatment would be too burdensome to impose upon hospital nurses, and not likely to be carried out efficiently in all points. My position, in rural practice, rendered it impossible to put my ideas into operation.

Now, it is an established fact that a burn of small extent, although severe, such, for instance, as is caused by burning sealing-wax dropping upon the finger, may be instantly relieved from pain, or prevented from causing a blister upon the surface, by simply plunging the finger into *cold water*. This relief ceases, and pain returns, so soon as the temperature of the water approaches that of the hand, when a fresh supply at a low temperature will again ensure relief, and if this mode of treatment shall be diligently carried out, until all pain ceases, upon withdrawing the finger from the water, the burn may be safely pronounced cured.

In this instance it would appear that reaction, pain, and vesication, are controlled and obviated by the agency of cold, when *thus applied*. I have learned experimentally that *cold air* will not have the same effect, but it is not my object to enter into the physiology or pathology of the question.

However, the treatment of these slight burns is a matter of little moment, as compared with these extensive burns upon the surface of the body so painful in all their details, and so generally fatal in their results.

It is to the treatment of such injuries that I would use my best efforts to direct the attention of the Profession generally; but especially the attention of hospital physicians and surgeons. Many instances occur, in which, so far as we can judge, the injury done is so severe, as to occasion a shock, through the nervous system, destructive of sensibility generally, and almost invariably destructive of life. But even in cases of less severity, where hope of life is not altogether extinguished, how lamentably deficient are our appliances in mitigating suffering—expediting recovery—or averting the very distressing secondary consequences, as adhesions, contractions of the integument, and the most unsightly deformities. Upon these grounds, I would beg a fair trial to be given to the plan of treatment which I advocate, and which I have reason to know, from the periodical medical literature of the day, has been (as it were accidentally), carried out in a few instances to a limited extent, but, at the same time, very decidedly to the benefit, and comfort of the sufferer.

I would, then, simply suggest that sufferers from severe and extensive burns, should, with the least possible delay, be placed in a tepid bath, exactly of such a temperature as produced a sense of ease, comfort, and freedom from pain. In the case of very young subjects, the temperature should be decided upon by the medical attendant, or an intelligent nurse.

The bath should be sufficiently roomy, so as not to occasion the least restraint upon the patient, and some simple contrivance—as web bands or leather straps, used to support the shoulders, neck, and head. The usual supply of two jets of water, one hot, the other cold, aided by a thermometer, would enable any intelligent attendant to keep the water at a given temperature, if necessary, for a week, or even a month; and, of course, by removal of the plug, the water in the bath could be renewed at pleasure.

The proposal to keep a patient immersed in a tepid bath for one, or even several days or weeks, may seem absurd, if not impracticable; yet my fixed conviction is, that this mode of treatment is quite practicable, and would be found, in its results, superior to any mode of treatment hitherto adopted.

The removal of the patient from the bath should be altogether directed by the medical attendant, and of course deferred so long as doing so occasioned a return of pain and suffering. Every want and necessity of the patient, such as taking food or medicine, or removal of the excretions, could be more readily effected in a bath, than when lying upon any description of bed or couch. When it is considered that scarcely any other accidental injury occasions the same amount of pain, protracted suffering, and subsequent permanent deformity and loss of bodily power, under the most judicious plan of treatment hitherto practised, I trust that these very brief suggestions, upon a subject of so great importance, may serve to call forth the thought and attention of those members of our profession, who, being connected with public charitable institutions, have the opportunities and ability to put them to the test of practical experience.

The mode of treatment proposed commends itself, at least in this respect, that it is wholly free from any risk to the sufferer, whilst there is ground to believe that—1st. Pain would be alleviated. 2nd. Vesication in great measure, if not wholly, prevented. 3rd. That excessive serous discharge being obviated, the blood would retain its normal constitution, and not become, as some physiologists have stated, too viscid or inspissated, to circulate healthfully. 4th. That profuse suppuration, offensive discharges, and sloughing of the injured parts, would be prevented; and 5th. That if such results could be effected, there is good cause to believe that these most obstinate and unmanageable adhesions, and contractions, consequent upon severe burns, would, as a natural consequence, be averted.

HYSTERIA IN THE MALE,

FOLLOWED BY, AND COMPLICATED WITH, CEREBRAL CONGESTION.

By J. G. THORNLEY, M.D., L.R.C.S.Edin.

ON the first of October, 1867, I was called to see J. W., who was stated to be very ill. On arriving at the residence of my patient, I found him in bed, with flushed face, stertorous breathing, and a tremulous movement or quiver running through both the upper and lower extremities; occasionally the tremulous movements assumed the character of a slight convulsion, and then terminated for a period of from five to fifteen minutes, when the tremulous movements again commenced, and terminated as before. The patient, during all this time, did not speak, but lay in an apparently semi-conscious state. That peculiar trembling of the eyelid which is so strongly diagnostic of hysteria, and which has been especially pointed out by Dr. Guy, was well-marked, and was present during almost the whole period of the attack. The pulse was very variable, ranging from 72 to 100 beats per minute. On shaking the patient, and speaking in an authoritative tone of voice, he would open his eyes for a moment, answer in a stupid manner, and again relapse into his former state of apathy. After remaining in the above state for about forty-eight hours, and there being no signs of improvement, his friends were desirous that I should call in another medical man;

I accordingly called into consultation my friend, Dr. M'Bride, who concurred with me that the case was one of hysteria, with incipient cerebral congestion. At the time of our first meeting in consultation, the tremulous motion of the limbs, and the quivering motion of the eyelids had ceased, the face becoming more flushed, with throbbing of the temporal arteries, and increasing stupor, from which it was almost impossible to arouse him.

During the early part of the attack when the hysterical symptoms were well-marked, I administered repeated doses of ammoniated tinct. of valerian, and tinct. of assafœtida, and sprinkled the patient's face and hands with cold water, which, however, had very little effect. I then directed the patient's head, neck, and chest to be held over the side of the bed, and from a considerable distance, poured a continuous stream of cold water over the exposed face and chest of the patient. The effect was astonishing, perfect consciousness almost immediately returned, and he was able to sit up in bed, and answer questions rationally, and even requested that more cold water should be poured over his face and hands. The good effect of the cold water was, however, but of short duration, for, in the course of a short time after its application, the patient fell into the same state of stupor as before. I tried the above treatment, together with that of assafœtida enemata for some time, but as it seemed to be losing effect, and as the cerebral symptoms were increasing, we resolved to try another mode of treatment. Six leeches were ordered to be applied to each temple, and a blister to the nape of the neck, and to be allowed to remain on for ten hours ; the leeches extracted a considerable quantity of blood, which was still further increased by stuping the leech-bites, and when the bleeding had ceased, the flush in the face and neck had somewhat abated ; the blister was applied to the nape of the neck about five o'clock, P.M., and when I called on the following morning, the patient was able to converse rationally. The friends stated that indications of returning consciousness began to appear about midnight. The patient from this period progressed steadily towards convalescence, and in the course of about a fortnight afterwards, was able to walk a long distance into the country.

The history not only of this patient, but that of his family, is somewhat peculiar, for when the subject of this case or any member of his family see blood, or is subjected to any surgical operation, however trifling, syncope is immediately induced. The subject of this case is by no means of an effeminate appearance, but is tall and well-formed, and wrought for some time as a blacksmith, and at which trade two of his brothers are still employed. About ten days previous to the hysterical attack, this patient fainted on account of a suppurating finger being slightly punctured with a bistoury. The supposed cause of the attack was some unpleasant words which he had with one of his brothers, some four or five hours previous to the attack. The patient is now in good health, and following his usual employment, which is a kind of carpentry, known to artizans as pattern-making. He does not appear to have suffered much by his late attack.

Hospital Reports.

ST. GEORGE'S HOSPITAL.

BRIEF NOTES OF THE CASES OF COMPOUND FRACTURE ADMITTED IN THE YEAR 1866.

No. 1. Charles D., 19 years of age, was knocked down and trampled on by a horse. He was admitted under the care of Mr. Pollock, with an oblique fracture of the left leg. The wound was small, but there was great bruising and swelling. Assellini's box was applied, but gangrene set in on the third day after the accident, and amputation became necessary. The stump sloughed, and secondary hæmorrhage carried him off. He died on the 28th day.

2. Thomas J., aged 18, was admitted under the care of Mr. Henry Lee. He had been caught by machinery on the left leg. Epiphysis of the lower end of the femur separated. The soft parts were immensely lacerated. The limb was amputated. The patient never rallied from the collapsed state he was in when admitted, and died in 12 hours.

3. George F., æt. 21, under the care of Mr. Tatum. A railway train had run over his left thigh, and almost separated the limb from the body. Stimulants were administered, but he died from collapse in three hours after admission.

4. Richard J., 34 years of age, fell from a boiler, and broke his left leg. He was admitted under the care of Mr. Tatum. Both bones were found to be fractured, and there were two small punctured wounds. After setting, side-splints were applied, and Salter's swing was used. The patient was supplied with stimulants and anodynes, and recovered in 40 days after the accident.

5. Eli H., æt. 38, was received in charge by Mr. Pollock. He was kicked by a horse on the left thigh. There was an oblique fracture at the junction of the middle and lower thirds, and a small punctured wound. The bone was set and a long splint applied. Recovery was completed in 44 days.

6. Thomas W., 10 years of age, had fallen from the roof of a house. When admitted he was placed under the care of Mr. Holmes. The left leg was broken. The fracture was oblique, and there was a small wound on the outer side of the tibia. Assellini's box was applied. A pad of lint was placed over the wound, but slight suppuration occurred; it did not, however, materially retard the recovery, which was completed in 49 days.

7. Evan L., aged 29, admitted under the care of Mr. Pollock. He was run over by a railway carriage. The foot and ankle of the left leg were hanging by a shred of skin. The bones were splintered. Amputation was performed. Phagedæna attacked the stump twenty-two days after amputation. Recovery was slow, and was retarded by the formation of abscesses in the stump. It was completed, however, in 86 days.

8. Caroline A., 44 years of age, was received and placed in charge of Mr. Holmes. She had slipped off the kerb-stone, and the bones of the left leg were fractured at their lower third. There was a small wound on the inner side. Assellini's box was used, and the patient recovered in 48 days.

9. Sarah L., æt. 41, was admitted under care of Mr. Tatum. She had fallen from a van, and a cart-wheel had passed over the left arm. The humerus was fractured at about its centre, and there was a small wound. Side splints were applied, and in 8 days the patient had recovered.

10. James R. J. was received in charge of Mr. Pollock. He had fallen amongst the machinery of a saw-mill. The right leg was severed just above the ankle, the bones being smashed, and the periosteum stript off. Amputation was performed. Phagedæna set in on the fifth day. The anterior flap was destroyed, and the bone exposed. Bed sores and exhaustion ensued, and in 50 days the patient died.

11. Henry M., æt. 34 years, was admitted, and taken in charge by Mr. Holmes. He had been run over by a van, and there was an oblique fracture of the left leg, about two inches above the ankle. The wound was small ; Assellini's box applied. Phagedæna set in on the tenth day. The soft parts were extensively destroyed, and the bone left exposed. Amputation was performed on the twelfth day ; nine days after he died of pyæmia.

12. Charles S., 40 years of age, was admitted, and taken in charge by Mr. Pollock. He was thrown from a cart. The bones of the right forearm were fractured at about their centre. The wounds were small, and on the inner side. The bones were set and side splints applied, and in 8 days the patient recovered.

13. George P., æt. 50, under the care of Mr. Henry Lee. A railway waggon had passed over the right arm. The

humerus was comminuted above the elbow ; the olecranon and outer condyle were also fractured. The wound was small. Side splints were applied. On the fifteenth day phagedæna attacked the wound. The skin at the back of the arm sloughed, and the triceps muscle was laid bare. He ultimately made a good recovery in 85 days.

14. James M., 25 years of age, had fallen from a bridge twenty feet high. Mr. Holmes, under whose care he was placed, found a comminuted fracture of the upper third of the humerus of the left arm. There was a small wound on the outer side. Side splints and pasteboards were applied. The patient was delirious for the first few days, and there was great swelling of the parts. He ultimately did well, and recovered in 47 days.

15. Thomas H., æt. 34, was also under the care of Mr. Holmes. He had stepped from the footboard of an omnibus in motion, and fell down. He had sustained an oblique fracture of the lower third of the right leg ; Assellini's box was applied. An attack of phagedæna retarded the recovery, but in 48 days he was well.

16. Michael S., 29 years of age, fell from a scaffold through a glass window. He was under the care of Mr. Henry Lee. The radius of the right forearm was fractured about three inches above the wrist. There was also an angular cut across the back of the forearm. A pistol-shaped splint was applied, and the wound closed by silver sutures. Phagedæna set in on the eighteenth day. The cephalic vein inflamed, and was obliterated by subcutaneous section. He made a good recovery in 64 days, and soon after his discharge could lift a half cwt. with the injured limb.

17. Edward W., æt. 27, under the care of Mr. Tatum. He was thrown from a horse, and kicked on the left leg. There was an oblique fracture a little below the centre of the limb, and a wound an inch long ; Assellini's box and a side splint were used. His recovery was retarded, first, by suppuration, and then by phagedæna, but ultimately it was completed in 91 days.

18. Mary B., 48 years of age, was admitted under the care of Mr. Holmes. She was knocked down by a man, and sustained an oblique fracture of the right leg two inches above the ankle. There was a small punctured wound. Assellini's box and pasteboard splints were applied, and in seventy-seven days she had recovered.

19. William B., 38 years of age, fell from the roof of a railway station. Mr. Pollock had charge of the case. There was an oblique fracture of the left leg, the bones protruding through a wound two inches long. After replacing them, Assellini's box was applied. On the fourth day the wound became unhealthy. Secondary hæmorrhage occurred on the thirteenth day, and again on the twenty-third day, when amputation was performed. He died of pyæmia nineteen days subsequently.

20. James D., æt. 17, under the care of Mr. Henry Lee. This patient had been jammed between a cart-wheel, and a piece of wood, and suffered from a transverse fracture of the lower third of the left leg. The skin was firmly tucked in between the fragments of the tibia ; the wound was small. Assellini's box was applied, but the bones could not be got into apposition until the tendo achillis was divided. There was a great deal of swelling of the limb. Pyæmia set in on the 20th day, and the patient died 5 days afterwards.

21. Thomas W., æt. 47, was kicked by a horse on the left leg. He was placed under the care of Mr. Henry Lee. There was an oblique fracture of the lower third of the limb, and a small punctured wound. Assellini's box and pasteboard splints were employed, and in 61 days the patient recovered.

22. Samuel M., was brought in, run over by a railway train. Mr. Holmes attended him. The left leg and right thigh were fearfully injured. The leg was crushed, and fragments of the femur were protruding through an extensive lacerated wound. The right arm also was lacerated. Stimulants were administered, but the patient was moribund when admitted, and died in 2 hours.

23. Eliza N., 57 years of age, fell down a flight of steps. Mr. Holmes attended the patient. There was an oblique fracture of the lower third of the left leg, and a small wound. Assellini's box was applied, and in 42 days the patient recovered.

24. Rebecca C., 52 years old, fell from a height of 20 feet, and broke her left thigh. She was admitted under the care of Mr. Henry Lee. There was an oblique fracture through the centre of the femur. A long interrupted splint was applied, and the patient recovered 112 days after the accident.

25. Isaac D., æt. 30, was jammed between some pieces of timber, and his left leg broken. Mr. Holmes had charge of the case, and found a transvere fracture of the tibia at the middle third, and the fibula also fractured two inches lower down ; the wound was small. Assellini's box, side splints, and pasteboards were used, and the patient recovered in 29 days.

26. Elizabeth C., æt. 30, fell down stairs. Mr. Pollock attended, and found the bones fractured at the lower fourth of the left leg. There was a small wound. Assellini's box and pasteboards were employed, and in 40 days the patient recovered.

27. John O., 22 years of age, was kicked by a horse on the left leg. Mr. Tatum attended him. Both bones were fractured obliquely at the centre, and there was a wound half an inch long in front of the leg. Assellini's box was used. Suppuration occurred, with necrosis, and some pieces of bone were removed. In 66 days the patient recovered.

28. Thomas B., æt. 53, fell from the third story of a house. He was admitted under the care of Mr. Tatum. There was an oblique fracture of the right thigh, through the centre of the bone, and a small wound. There was also a simple fracture of the left thigh, and a bruise on the vertex, with coma, epistaxis, and stertorous breathing. Stimulants were administered, but he died in two hours.

29. John T., æt. 38, was thrown out of a van. He was admitted, and placed under the care of Mr. Holmes, who found oblique fracture of both bones of the right leg. There was a small wound, and great bruising and swelling. Side-splints and the inclined plane were used. Suppuration set in. On the 17th day he had a rigor, and died of pyæmia in 8 days.

30. John H., 12 years old, was knocked down by a railway truck, and was admitted under the care of Mr. Pollock, with oblique fracture of the lower third of the right leg, and a long lacerated wound. Assellini's box was used, and the wound closed by silver sutures. Suppuration occurred, and the end of the lower fragment of the tibia became exposed. The bone exfoliated, and the wound healed ; and in 78 days the lad recovered.

KING'S COLLEGE HOSPITAL.

SIX CASES OF ANASARCA AFTER SCARLET FEVER.

Under the care of Dr. BEALE, F.R.S.

(From brief Notes by Dr. TONGE.)

ANASARCA POST SCARLATINAM.—W. J., æt. 27, carver and gilder ; admitted June 28, discharged July 23 ; in hospital 25 days. *Recovery.* Attacked with scarlet fever three weeks ago. Hæmaturia and dropsy of legs ; one week. On admission, cuticle desquamating ; slight dropsy ; urine smoky ; albumen ½. Urine free from albumen on 22nd day.

Treatment.—Liquor ammoniæ acetatis, and aromatic spirits of ammonia (7 days.) Then chloric ether, sesquichloride of iron and quassia. Compound scammony powders ; hot air bath.

ANASARCA POST SCARLATINAM.—Edward M., æt. 43 ; admitted September 16, discharged October 15 ; in hospital 29 days. *Recovery.* Nursed his children with scarlet fever ; pains in limbs and weakness six days ago ;

sore throat five days ago ; faint rash four days ago ; lumbar pain and porter coloured urine one day ; on admission no rash ; slight œdema of ankles ; urine scanty, bloody and albuminous.

Treatment.—Sesquichloride of iron ; same with quinine ; compound jalap powder ; sulphate of magnesia.

Anasarca Post Scarlatinam.—Edward M., æt. 13 ; admitted Oct. 21, discharged Nov. 19. In hospital 29 days. *Recovery.* Discharged two days ago ; convalescent from scarlet fever ; soon afterwards pain in right iliac region, headache, anorexia, nausea, and vomiting. On third day skin hot, slight puffiness of face. Pulse 160. Urine brownish red, containing blood and one-half albumen ; much tenderness over right iliac region. Free from dropsy on eighth day. Urine free from albumen on sixteenth day.

Treatment.—Liquor ammon. acetatis, chloric ether, and aromatic spts. of ammonia (12 days). Then chloric ether, and sesquichloride of iron and quassia. Scammony and bitartrate of potass, o.m; hot air baths.

Anasarca Post Scarlatinam.—John D., æt. 6 ; admitted July 26. *Died* on July 30. In hospital four days. Attacked with scarlet fever three weeks ago ; vomiting, dropsy, and hæmaturia ten days ago. On admission, pallid, slightly anasarcous ; abdomen slightly swollen, painful, and tender ; epistaxis ; diarrhœa and vomiting. Pulse 148. Respiration 72. Wheezing at bases of lungs behind.

Post-mortem.—Fluid in pleuræ, pericardium, and peritoneum. Lungs carnified in parts. Kidneys congested.

Treatment.—Liquor ammoniæ acetatis, chloric ether, and aromatic spts. of ammonia. Compound scammony powder.

Anasarca Post Scarlatinam.—Thomas B., æt. 4; admitted Aug. 26. *Died* on Aug. 29. In hospital three days. Scarlet fever four weeks ago; dropsy three days; on fourth day face puffy; great restlessness; urine the colour of porter; albumen ½; many blood corpuscles, epithelial cells and casts, and uric acid crystals. Pulse 176. Respiration 76. Dulness and bronchial breathing all over right lung, except at apex. On 7th day several slight convulsive fits, coma, and death.

Post-mortem.—Right pleura full of puriform fluid; much recent lymph on pleural surfaces; right lung hepatized except at apex; left lung congested, hepatized in parts; recent peritonitis; kidneys very pale; tubes choked with epithelium.

Treatment.—Liquor ammoniæ acetatis, and chloric ether; scammony powder. Packing in hot blankets.

Anasarca Post Scarlatinam.—Sarah B., æt. 7 ; admitted Aug. 26. *Died* on Aug. 28. In hospital two days. Sister of last related case, Thos. B., æt. 4. Details of this case were not noted at the time.

The treatment consisted of liquor ammoniæ acetatis, and chloric ether; calomel and scammony powder; cat. sinapis.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

LITHOTOMY IN A CHILD ; OPERATION FOR NECROSIS OF TIBIA ; REMOVAL OF TOES, AND INSERTION OF PINS IN A CASE OF UNUNITED FRACTURE.

By Mr. COLLIS.

On the 11th instant we had an opportunity of witnessing several operations performed in the theatre of this hospital by Mr. Collis.

The first operation was lithotomy in a child aged three years and three months. Mr. Collis used a grooved staff, a small-bellied short knife with a long handle, and a small lithotome only. The operation was performed with great deliberation—great caution seemed to be used not to make the internal incision too extensive. The incisions being completed the left forefinger of the operator was slowly insinuated into the bladder, until the stone was felt and quietly manœuvred by slight flexion of the finger until it could be withdrawn by a slight rolling movement. No forceps were introduced, and Mr. Collis informed us that in the child he avoids their use, if possible. Where the parts are so small and delicate as they necessarily must be in a child of this age, this is a manifest improvement in practice. In this instance the bladder was empty and contracted round the stone, so that the introduction of a forceps, and the expansion of the blades would have added materially to the risk.

The stone was the size and shape of a large olive, rough and heavy. It weighed 70 grains, and seemed composed of oxalate of lime and pale lithic acid.

Mr. Collis next exhibited a boy who had suffered from repeated attacks of necrosis of the tibia. A fresh attack of ostertis had set in; the centre of the shaft of the tibia was much enlarged; the integuments over it were red and œdematous. It was manifest that unless something was done to arrest the inflammation, a large portion of the bone would die, and the boy would suffer much, and for a long time, during the natural process of evolution of the sequestrum. Mr. Collis stated that he had cut short a similar attack in the early part of the summer by trephining the bone, and subsequently using caustic, after the manner practised by Mr. Kirkpatrick. The part then operated on seemed now perfectly healthy. Mr. Collis first used an instrument like a carpenter's augur, the invention of the late Mr. Smith, of Leeds, which Mr. Teale had kindly presented to him, and which has been used in Leeds for a long time for this purpose. The bone was very hard, but the augur seemed to pierce it readily once it began to bite. It appeared, however, to have a tendency to crush or splinter the bone, and not to make a clean cut or a sufficiently free opening, so that it was discarded for the trephine. Mr. Collis, however, said it possessed great power, and was a serviceable addition to the armamentarium chirurgiæ. He seemed to think it most applicable to the cancellated ends of the long bones. As soon as the medullary cavity was tapped, a copious flow of oily lymph (with a near approach to pus) took place.

A third operation consisted in removing some toes which had been forcibly flexed upon the sole of the foot by the contraction of a cicatrizing ulcer, the result of severe burns. The position of these toes, with the nails lying along the sole of the foot, pointing back towards the heel, made it impossible for the man to lay his foot to the ground. There was a large uncicatrized sore on one side of the heel, and much dense cicatricial tissue about the sole and up the leg. Mr. Collis would have preferred to amputate below the knee, as more likely to enable the man to earn his bread soon, and with freedom from further annoyance, once the stump healed, but the patient was not inclined to submit. The operation was tedious, owing to the minute and careful dissection of the skin covering the deflected toes. The resulting wound, after removal of the remains of the five toes, promised a useful stump for walking and working purposes. Some arteries were secured by acupressure.

Mr. Collis finally inserted three pins into the fibrous bond of union, in a case of false joint in the lower end of the tibia. The limb was useless, from the pain which any attempt to bear upon it caused the patient. The fracture had been very oblique, and the upper fragment projected considerably. A tough, fibrous tissue joined the two fragments, and allowed of a limited motion. Mr. Collis inserted the pins, for the purpose of exciting fresh action in this tissue. The pins were to be removed within twenty-four hours, and the limb put up in a stiff pasteboard case.

A self-recording barometer, which has been termed Barometrograph, has been invented by M. Brequet. It is designed to furnish diagrams every six hours of the pressure of the atmosphere. It consists of four metallic boxes, the upper and lower of which are curved : these are vacuum-boxes, and are, in some measure, a modification of the aneroid barometer. The registration is made by a revolving cylinder, which is wound by clock-work, and is covered with a paper on which lamp-black has been deposited. On this paper a lever from the barometer makes its traces as the wheel revolves.

Foreign Medical Literature.

OPERATION OF SPLENOTOMY (REMOVAL OF A SPLENIC CYST AND COMPLETE EXTIRPATION OF THE HYPERTROPHIED SPLEEN): RECOVERY.

PERFORMED BY DR. PEAN, SURGEON TO THE HOSPITALS.

By BALTHAZAR W. FOSTER, M.D., M.R.C.P.,

PHYSICIAN TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

Translated from the *L'Union Médicale*, Nov. 26th, 1867.

MLLE. ADELE CERCILY, boarder at the orphanage of Saint Mandé, aged twenty years, of a robust constitution and lymphatic temperament, had always enjoyed good health until the appearance of the first symptoms of the present malady, which manifested themselves some two years ago, by an increase in the size of the hypogastric region, accompanied by acute pain. The symptoms increased gradually till about two months before the operation, when her sufferings became so violent that they compelled her to cry out, and threw her into a profound state of melancholy and depression. The pains, moreover, were not thoroughly intermitting, were seated for the most part in the right illiac fossa, and resisted all treatment.

The patient came to consult me on August 20th last, her sufferings had become so unsupportable, that she was prepared to undergo any treatment.

The following are the results of the examination made at that date :—

General health greatly debilitated, advanced anæmia, great disorder of digestive functions, dysmenorrhœa, slight embarrassment of respiration. The patient complained of febrile attacks, and diffused neuralgic pain. She was in a state of exhaustion from her sufferings ; there was no œdema, yet a little embonpoint.

The abdomen was increased in size, and presented a considerable prominence in the hypogastric region, while there was scarcely any fulness in the hypochondria and lumbar regions. The prominence was nodulated on its surface, but, in other respects, was similar by position, extent, and form, to the gravid uterus in the last months of gestation. The circumference of the abdomen measured 1 metre 10 centi-metres.

Palpation produced a little pain in places; the consistence of the tumour varied ; fluctuation was very distinct in the median line, and on the right side. At the surface of certain elevations, particularly on the left side, the consistence was firmer, solid, and recalled that of a fibroma.

On percussion, there was absolute dulness all over the surface of tumour, and sensation of fluid over a great part of its extent. Resonance all round it, in the epigastric, hypogastric, and especially in the lumbar regions. The tumour appeared clearly defined at its circumference, and, in particular, at the superior margin. It was completely immoveable.

Digital examination found the hymen entire. The uterus, of normal size, appeared wedged in the thickness of the tumour, which rendered it immoveable, and formed, anteriorly and posteriorly, a projection, which depressed the vaginal walls. The finger easily detected the existence of fluid on pressure and percussion being made on the hypogastrium. The greater solidity of the tumour on the left side and below, led to the opinion that it was developed in the left ovary, and the pain caused on this side by vaginal pressure, excited a fear that numerous adhesions existed.

On September 6th, at the Convent of the Augustine Sister, in the Rue de la Santé, I performed the operation, assisted by Drs. Ordonez, G. Désarènes, Gaudin, Morpain, Gossé, and M. Magdelain, my clinical assistant.

The patient resisted the action of chloroform, and it produced vomiting several times during the operation, which was a troublesome complication. An incision was made in the median line from the umbilicus to the pubis. The abdominal wall, somewhat thick, was divided in successive layers. Four ligatures had to be applied to the divided vessels. The peritoneum was divided on a director, and no fluid escaped from its cavity. The edges of the incision having been separated, the anterior surface of the tumour was exposed, in close contact with the abdominal wall, and covered over its entire extent by omentum, which it was impossible to separate on account of adhesions. I resolved to puncture the cyst through the omentum with a large trochar. The puncture gave exit to three litres of thick, viscid, brownish-yellow fluid. The tumour having been thus diminished in size, I was able to introduce my hand into the peritoneal cavity, and carrying it downwards, I detached the omentum from the pelvis and the tumour. Traction separated the adhesions, which gave rise to no hæmorrhage requiring the application of ligatures. Next I searched in vain in the direction of the ovary to discover the situation of the pedicle or place of origin of the cyst, which, now that it was freed from the omentum which had covered it, presented an appearance very similar to uterine tissue. I was able to satisfy myself not only that there was no pedicle, but also that the tumour was completely independent at its inferior surface of the organs contained in the pelvis. Knowing that cysts having a very close analogy with those which arise in the ovary may be developed in the mesentery, or even in the parenchyma of the kidney, I directed my attention to those parts, but the result of my examination was completely negative. The impossibility of drawing the tumour outwards in order to carry the exploration further, necessitated the extension of the incision. I therefore prolonged it towards the left to the extent of four finger-breadths above the umbilicus. The portion of the cyst forming the pouch evacuated by the puncture could now be drawn into the superior angle of the wound. As it still contained fluid, in order to empty it completely, and to facilitate the extraction, the thinnest part of the wall of this pouch was excised. I could now draw the cyst outwards.

We were now struck by the aspect of the cyst, as regards its unusual colour, the character of the tissue forming its walls, especially in the thickest portions. But soon doubt was impossible. The search for the point of origin of the cyst conducted the hand to the diaphragmatic hollow of the left hypochondrium, and permitted me to circumscribe the fleshy mass constituting the superior portion of the tumour. Everything proved that it was the spleen which was implicated, and that a cyst situated anteriorly and inferiorly had been developed in the hypertrophied organ, and had burrowed in its substance to a considerable distance.

The cyst was unilocular, and the nodules, as well as the non-uniform resistance of different parts of its surface, remarked on examination, were due to the varying thickness of its walls, which varied from some millimetres to four or five centimetres in thickness.

The thickened portions were situated on the inferior part of the cyst accessible to the touch, and also on the lateral surfaces, especially that occupying the left flank.

The surface of the tumour was furrowed by vessels, and marked posteriorly by a large venous trunk of 1½ centimetres in diameter. In spite of the extent of the incision the immediate extraction of the whole tumour was rendered impossible by its situation, and I determined, therefore, to remove it in several pieces. Bearing in mind the disposition of the arterial system of the spleen, and how it is divided into tracts independent of each other, we proceeded to ligature in succession, the several branches of the splenic artery, so as to circumscribe and isolate that part of the spleen containing the cyst. The large vein which extended on the posterior surface having been first tied as near as possible to its junction with the splenic vein, the inferior part of the tumour was cut off, and, as we had hoped, no hæmorrhage followed the section. The superior part of the tumour, consisting of about one-third of the whole mass, had now become accessible. Some intestinal and omental adhesions were detached and gave rise to no hæmorrhage, which compression of the vessels

did not arrest. If the structure of the spleen had undergone no degeneration whatever, but had been perfectly healthy, it would have been impossible to preserve the remaining portion of the organ. For the nature of the tissue rendered compression by a clamp impossible, and besides the clamp could not be drawn out, nor maintained in the superior angle of the wound, because the mass which would serve as its base was situated too deeply in the sub-diaphragmatic hollow of the left hypochondrium. Moreover, the extent of the cut surface of the spleen was too extensive to strangulate.

The extraction of the last portion of the spleen was proceeded with as follows :—

First of all, four metallic ligatures were carefully placed on the gastro-splenic omentum, as near the spleen as possible, in the short space which separates it from the tail of the pancreas and the bulging end of the stomach. According to all probability, these ligatures would include all the vessels and remove all risk of hæmorrhage. However, in order to guard ourselves still better against the immediate danger, the gravity of which we had every reason to fear, we proceeded to extirpate the remaining portions by their successive destruction by the actual cautery, after having compressed them in a special clamp made with the object of obtaining by compression of the tissues, linear eschars. These successive cauterizations reached the extreme limits of the spleen below the ligatures so thoroughly that there did not remain a vestige of the splenic tissue. The four metallic sutures were next cut close and left in the cavity of the abdomen. The patient had not lost 100 grammes of blood by the operation. During the examination of the cyst no portion of the fluid escaped into the abdomen. Nevertheless, I neglected no precaution necessary in such a case, but, after having cleansed the coils of intestine, I sponged out the peritoneal cavity several times. I then closed the wound, and in order to obtain complete occlusion, I placed nine metallic ligatures on the abdominal parietes, at a good distance from the edges of the incision, and including the parietal peritoneum. Five twisted sutures were placed on the points which opened between the ligatures.

The operation, thus terminated, lasted a little more than two hours. It had been performed without any remarkable loss of blood, with the exception of that contained in considerable quantity in the tissue of the tumour. During the whole of the operation the patient was kept in a state of perfect insensibility. The chloroformization was so complete that it required nearly half an hour to restore her from her profound artificial sleep. During the day and night following the operation, there was no fever ; the pulse was 80, the respiration was again easy ; the patient complained only of malaise, and had occasional vomiting, due to the action of the chloroform. She took a little cold broth, and some stimulating drinks.

The next day vomiting occurred on two occasions, and excited a little pain in the left hypochondrium ; the stomach was not at all painful on pressure, and there was no sign of meteorism. The pulse was normal, 90.

On the third day the vomiting ceased ; the patient recovered her cheerfulness ; the improvement, indeed, was so marked that she could sit up and turn in her bed without perceiving the least pain. The abdomen was soft, and not tender on pressure.

The margins of the wound were perfectly united, and the pins of the twisted sutures were withdrawn. Broth and porridge.

On the 5th day all the metallic sutures were withdrawn, and replaced by a dry collodion suture. At this time the general health of the patient was as satisfactory as if she had undergone no operation. There was no fever, and no pain ; the digestive functions were so well performed that solid food was allowed.

From the 8th day, the patient could leave her bed, recline on a long easy chair, without producing any relapse. The cicatrization of the wound was solid and complete in all its extent. At this date the catamenia, which had hitherto been regular, but scanty, and had ceased at the last period, only three days before the operation, re-appeared in great abundance, and of a much darker colour than natural. The flow lasted three days, but caused only some slight pain on the right hypogastric region. This anticipatory appearance of the menstrual flow frequently occurs after ovariotomy, and, for my own part, I have often observed it, and always under such conditions, that I consider it a most favourable symptom.

On the 10th day it was impossible to prevent the patient from going out. She descended and mounted alone the two flights of stairs which led to her chamber, after having spent a few minutes sitting in the garden, which was about 100 metres from the body of the building in which she lived. She walked as well as possible. The next day she had gone into the entrance court of the convent, when she was extremely frightened by the sight of a runaway horse. This young girl, besides being highly nervous, was so easily affected, that she fainted, and, in spite of the care with which she was surrounded, she was seized with nervous tremors, which lasted three hours. She afterwards had delirium, and some ataxic symptoms.

From this time appetite and sleep deserted her ; the pulse varied from 100 to 120 per minute. Violent pains occurred in the right orbit, and brought on a vivid injection of the conjunctiva and lachrymation. This condition lasted some days, and produced moral and physical depression so great as to inspire much anxiety. Nevertheless, thanks to the great care which surrounded her, all the symptoms successively disappeared. The orbital pain and conjunctival injection were determined by an attack of epistaxis; but these local conditions recurred again three different times from week to week; each time, however, the crisis declared itself by epistaxis.

From the fifteenth day the patient, who had been obliged to take to her bed, could again quit it, and return to the use of solid food. She was allowed to go out, and afterwards she went down to the court-yard and the gardens, where she spent the greatest part of her days. During this time the state of her health left nothing to be desired, as, indeed, several distinguished physicians who visited her could testify, more especially Drs. Belin, Blanchard, Galligo of Florence, Kœberlé of Strasbourg, and my illustrious and revered master, M. Nélaton, to whose wise counsels I owe the success I have obtained in the practice of ovariotomy.

However, not to omit anything, I must mention some circumstances which occurred during her convalescence. Thus, during the third and fourth weeks, at the same time that the orbital pains and the epistaxis appeared, the stomach was affected with violent neuralgic pains, which disappeared immediately on the administration of sulphate of quina. Besides this, the menses, which had not returned at the fifth week, were replaced by very sharp uterine pains, which some laudanum injections quickly removed. Finally, during the sixth week an adhesive phlebitis of the internal saphena made its appearance, accompanied by œdema, which soon ceased to be painful under some topical treatment.

The convalescence was, however, only somewhat impeded by these symptoms, which left after them no permanent lesion. The menses returned for the second time on the sixty-fifth day after the operation. The respiration remained perfectly easy. The patient affirmed that she was able to walk quickly without inconvenience, which was formerly impossible. Lastly, when she was presented to the Academy of Medicine, M. Barth auscultated the jugulars, and could discover no bruit de souffle, a circumstance extremely rare, in the case of a young girl of her age dwelling in Paris.

Examination of the Tumour.—The tumour was examined immediately after the operation; it was of the colour and consistence of hypertrophied spleen. The mass first removed constituted the cyst-walls, and formed about two-thirds of the morbid mass; it weighed 1140 grammes. The walls of the cyst were of variable thickness; at certain

points they were thin and reduced to a fibrous membrane, in other places, on the contrary, they were two or three finger-breadths in thickness, and were composed of a reddish soft structure, of an appearance similar to that of the spleen. The structure of this tissue was examined by Dr. Ordonez. This able observer recognized, under the microscope:—1. A great number of unaltered blood-corpuscles. 2. A very large quantity of the glomeruli of Malpighi, hypertrophied to such a degree that it was easy to isolate them by the aid of a lens. 3. At certain points where the substance was much thinned, these elements were seen to disappear successively, and to give place to a very close net-work of fibrous tissue, which in spots alone formed the cyst-wall. The wall itself was traversed on the exterior by a great number of blood-vessels of all sizes. The interior of the cavity was smooth and covered in places by hard patches composed of carbonates and phosphates of lime and magnesia. The fluid contents did not differ materially from those found in some ovarian cysts. The fluid was thick, of a brownish yellow colour, and contained a large proportion of albumen, white corpuscles in various degrees of degeneration, and lastly some calcareous granules.

Reviews.

THE JOURNAL OF ANATOMY AND PHYSIOLOGY.

Series II. No. 1. Edited by Professors Humphrey and Turner. November, 1867. Macmillan and Co.

The "Journal of Anatomy and Physiology" is now put before the public in a rather diminished form, and appears as a new series under the editorship of Dr. Humphrey and Mr. Turner, two of the previous editors, Messrs. Newton and Clarke, having retired. The present number is still a good-sized volume, and contains 200 pages of scientific reading; and on the whole the journal keeps up its reputation fairly. Several of the original contributions, however, are hardly of a character likely to enhance the value or popularity of the work, and seem indebted more to the names of the authors than to the worth or readableness of the subject for their insertion. On the other hand, some of the papers are so valuable that they alone would more than repay the outlay for the whole volume.

The present number begins with a paper by Professor Gulliver, respecting his views on the nature of the red blood-corpuscles—views which are now pretty universally adopted in England, and which the recent experiments of Dr. Roberts, of Manchester, are not sufficiently satisfactory to displace. We would rather see a paper of this character in some other scientific periodical than in one which should be devoted exclusively to the working-out of new facts in anatomy and physiology.

Next follows a communication from Dr. Macalister, of Dublin, on the nature of the coronoid portion of the pronator radii teres, which appears to be almost peculiar to the human body, the chimpanzee being the only other animal in which it has been noticed. He considers it the product of a second or accessory germ independent of the rest of the pronator, and traces its homology with the inner head of the solæus in the lower extremity.

Mr. Gulliver throws out a suggestion for those studying the minute anatomy of the retina to examine the fovea centralis in the common sea-bream, and Dr. Chiene follows with a highly interesting paper on a case in which the innominate veins opened separately into the auricle, and in which other peculiarities existed.

Mr. Hulke's account of the minute anatomy of the retina of the porpoise is admirably worked out, and confirms Max Schultze's views (an account of which appeared in the January number of the "Quarterly Journal of Microscopical Science"). It is to be regretted, however, that the relative distribution of rods and cones could not be distinguished, for it is to comparative anatomy that Schultze looks for the foundation of the theory of the function of the different structures in Jacob's membrane. The retina in the bat, hedgehog, and mole is coneless, and with these animals a minimum of light allows them to see, while other animals are in darkness. Hence the rods are the readiest percipients of light, and their function probably is related to the light-sense. Snakes and lizards, on the other hand, which bask in the sun, and are therefore most exposed to the impression of colours, possess only cones, which are therefore looked upon as the organs of colour-sense. Mr. Hulke calls the fifth layer of the retina the granular layer, which renders the nomenclature rather confusing, for we have in succession the "outer granule," "inter granule," "inner granule," and "granular" layers. This last is sometimes called the "molecular," and this term seems much preferable to "granular," which is so likely to lead to error in speaking and writing.

In No. VIII. Dr. Rolleston gives an elegant and most exhaustive treatise on the non-identity of the modern with the ancient domestic cat; but although the ancient Greeks and Romans had not domesticated the cat, felis domesticus, in classical times, this animal was, nevertheless, domesticated in Western Europe at an earlier period than is commonly assigned. He afterwards succeeds in showing that the white-breasted marten, mustela foina, which is known also as the "beech marten," or "stone marten," was functionally the cat of the ancients. This paper will be read with great pleasure by all scholars, and fully bears out Dr. Rolleston's reputation as an elegant and most accomplished writer.

A short paper on the means of increasing the pressure on the artery in the use of the sphygmograph is contributed by Dr. Foster of Birmingham, one of the best authorities on the subject. He finds that by adjusting weights varying from ten to thirty grammes upon the screw which connects the arm with the spring, and which lies directly over the point of artery acted upon, the readings of the instrument are rendered much more marked, and he gives diagrams to show the effect of the addition of different weights. This is an important though small paper, for at the present time we are in want of some means of accurately registering with the sphygmograph. In the hands of different observers, it gives such different results, and these differences are apparently owing to defects in the method of applying the instruments, and defects in the instrument itself. Any practical improvements, therefore, in the means of adapting it to the arm, or in marking the pulse-waves, we look for with pleasure.

In No. XII. we have a highly interesting paper by Dr. Rutherford, of Edinburgh, upon a condition called electrotonus, *i.e.*, the peculiar state induced in a nerve during the transmission of an electric current. He shows that the position of nerve in the neighbourhood of the negative pole or cathode has its excitability increased, while that near the positive or anode has it diminished, or in other words, the — pole is a latent stimulant, and the + a sedative. From this he argues, that when we employ a continuous galvanic current with a view to remedy diseased conditions of the nervous system, we ought to subject hyperæsthetic portions as much as possible to the influence of the + pole, and anæsthetic portions to that of the — pole. At the same time, besides increasing the excitability of a nerve, the — pole increases its conducting power, and the + pole the reverse. Cold also lowers both conducting power and excitability, and heat acts just in the opposite manner. From this we might suggest that these two latter remedial means are more applicable in conditions involving diminished or increased excitability of the nervous system respectively, and the suggestion would only be born out by what is well-known in practice. Dr. Rutherford explains his differing from Prof. von Bezold in these results; for, the latter thinks the rapidity of nervous transmissions is diminished by both the + and the — poles of a constant current. He, however, used currents of far greater intensity and of longer duration, by which means Dr. Rutherford thinks all excitability was destroyed in each case owing to the severity of the current. A third point shown in this paper is that when under the influence of the — pole (anelectrotonus), the electromotive power is diminished—*i.e.*, the deflection of the needle shown when a fresh nerve is simply connected with the galvanometer, and in cathelectrotonus, the reverse. These experiments are very instructive, and we hope to see them further investigated for the relation of nerve force to electrical currents is a subject of deep interest at the present day, when physical science is making such rapid strides, and including such strange things in its grasp.

Dr. Bastian suggests a new method of preserving thin sections of brain or spinal cord, instead of that introduced by Lockhart Clarke, and it would appear to have a great advantage in rapidity of manipulation; for, whereas Lockhart Clarke's method usually occupies some hours, Bastian's is completed in ten minutes. The section is first washed with pure spirit; this is drained off, and a drop of pure carbolic acid

added to clear the specimen. When this is effected three or four drops of chloroform are poured over it and drained off, and a solution of Canada balsam in chloroform added, and a covering of glass applied. Or, instead of washing in chloroform before mounting, benzine may be used. Or, again, instead of using carbolic acid at all, sulphuric ether may be employed.

Mr. Mivart continues his notes on the osteology of the insectivora, and occupies nearly forty pages of small type. These will probably form a valuable reference, but for a journal they fill up too much room.

Among other original contributions we may mention one by Dr. Hair, on the arrangement of the muscular fibres in the alligator; Professor Humphrey on the skeleton of a rickety dwarf; Professor Turner on the anatomy of the pilot whale; Dr. Dohrn on the morphology of the arthropoda; Mr. Goodman on a three-toed cow, and Mr. Lankester on the spectroscopic appearances of some animal colouring matters.

A review appears of Dr. Kühne's experiments on pancreatic digestion, and from these, this observer maintains that it digests proteids at a rate, and to an extent with which gastric digestion seems a slow and feeble process. These experiments, however, were made not with pancreatic juice, but with an infusion of pancreas, or pieces of pancreas itself, and how much may be due to actual decomposition, and not to specific action, is hard to say. One result, however, if the experiment can be substantiated by other observers, shows that tyrosin and leucin were produced in quantity equalling together about four times the weight of the pancreas used—*i.e.*, they were not the result of decomposition in the pancreas itself. However, we know that bodies in an active state of change induce active changes in other allied bodies, and in this case the decomposition of the pancreas is quite possibly the cause of similar decomposition in the proteids acted upon. We should like to see this question further worked out, for it bears considerably upon therapeutics in the treatment of disorders involving feeble digestion.

Hering and Kölliker's views on the origin of the bile-ducts are expounded, and are very suggestive. They make them commence between the hepatic cells, which themselves act in the relation of epithelium to the commencing tubes.

We have not space to add any account of the reports on anatomy and physiology, or of Dr. Moore's analytical notices of recent Dutch and Scandinavian works, except to say that they seem to have been compiled with great care and impartiality. One notice will especially repay communication. We refer to Drs. Shellen and Miller's experiments on the communicability of cholera to the lower animals (page 197), the subject being of special importance at the present moment.

INTRODUCTION TO PHARMACEUTICAL CHEMISTRY. By Dr. J. Attfield. London: J. Van Voorst. 1867.

When we wish to gather the meaning or object that the author has in writing a book, we generally consult the preface. In nine cases out of ten, when we have read this introduction, we shall be in a position to view the work from the author's platform. The necessity for such an insight into the writer's view is rendered particularly important in the case of chemistry, from the immense number of books which the last few years have produced, connected directly or indirectly with this science. Unfortunately, in many cases, the only objects discoverable seem to be literary puffs. This is not, however, the case with the present work, it is evidently written for the use of the author's own class, and also for the pharmaceutical student generally. The latter now form a considerable body.

Dr. Attfield states that his book is intended as a guide to the student in acquiring a practical knowledge of chemistry, chiefly by means of personal experiments; we may add particularly to that branch of chemistry to which the author says his work is an introduction, viz., Pharmaceutical Chemistry. We must give Professor Attfield great praise for the care with which this book is drawn up. Thus, small matters, which in an ordinary work would be passed over in silence, are here noticed in their due course, and the reason for every small and separate phase of the operation is given. We can, perhaps, but illustrate what we mean by an example which occurs under the head of Arsenicum, page 89. "Fourth Synthetical Reaction. Boil a grain or two of arsenic with a few drops of nitric acid until red fumes cease to be evolved; evaporate the solution in a small dish to dryness, *to remove excess of nitric acid*; dissolve the residue in water—the product is *arsénic acid* (H_3, AsO_4)." The italics are our own. Where a mistake is likely to occur, even the pronunciation of the word is not forgotten.

The author, after giving a brief description of the elements, introduces, under the head of "Synthetical Reactions," different experiments bearing in most cases upon the preparations of the pharmacopœia. After these he gives the most important analytical reactions—firstly, in the form of a description of the experiments, afterwards by the rationale of the change. We think every reaction, both analytical and synthetical, should have been given in the form of an equation, particularly as the work is intended for the student. This, however, is only done in a few instances. A considerable amount of the work is devoted to analytical chemistry. It contains a section upon the examination of morbid urine and calculi, which, by a strange oversight, omits to mention Liebig's method of estimating urea.

The remainder of the book is taken up with Quantitative Analysis and Questions and Exercises. We heartily recommend this work to the consideration of pharmaceutical and other students. The style is clear and concise, and the tables for analytical work are most carefully compiled. The few plates inserted are beautiful specimens of microscopic lithography.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 25, 1867.

CHRISTMAS.

Leaving altogether the question of chronology, we come at once to the plain and open fact, that Christmas is a festival which has been celebrated for hundreds of years in this and other countries, in commemoration of the birth of Christ, whether it is precisely the anniversary of that event or not. We feel ourselves, though Medical Journalists, equally interested with others in the great fact to which this festival refers; while we may derive some additional satisfaction from the recollection, that our mission if faithfully and generously performed, unites us in some humble degree more particularly with Him who "went about healing all manner of sickness and disease among the people."

The lapse of time seems not to weaken the emotions to which this season gives rise. Events which heretofore created a deep and vigorous enthusiasm, have gradually lost their influence or been superseded by others, brighter and more important to the well-being of the human family, so that the shadows of forgetfulness obscure them, or, if thought of, it is only as things that have passed away. But Christmas possesses a charm of its own, a pre-eminence of interest, a power that never declines. As we approach it thousands of hearts beat high with expectation, in all positions and grades of life. Some welcome it as a brief release from ever-returning toil, a little space when the sun of enjoyment breaks through the sombre clouds of

their existence ; others as affording a repetition of those pleasures which give, in their estimation,

"The flower of life its lustre and perfume,"

and all regard it more or less as a period of rejoicing, when care should be foregone, and when each one, as his means will allow, should mingle and aid in the general delight. As a rule, this feeling is universally displayed, humbly in the house of the artisan, sumptuously in the mansion of the noble and the palace of the prince. There is the hearty welcome home again, the interchange of affection, the pledge of mutual help, the cheering token of approval, the exultation of the parent, the confiding smile of the child, and a hundred other susceptibilities which bind man to man, and sweeten the intercourse of human kind. Then there is the decorated homestead, the well-lighted and well-warmed apartment, the table loaded with viands, the sparkling wine, the gushing music-tones, the sprightly dance, all blending and helping to swell the tide of joy. Rare is the time when the cup of Britain's happiness is not full.

But is this all that claims our regard as the year draws towards its close? Are we to think of nothing but pleasure, our own, or conjointly with our friends? Is there no contrast to be found? Are there no dreary dwellings whose inmates are in hopeless wretchedness, and which the radiancy of our own throws in a still darker shade?

"Oh, state of happiness! hark how the gale
Moans deep and hollow o'er the leafless grove!
Winter is dark and cold."

We may be sheltered from the cold, but thousands are benumbed in their fireless homes. *We* may have abundance, and even luxury, but there are thousands who lack their "daily bread." The voice of deep wailing has already reached us from the East-end of London, and elsewhere, and how wide-spread the destitution may become it is impossible to foresee. No one knows so well as the medical man, whose duties introduce him often to the lowest of the low, the misery which is abroad in this land of wealth ; and we feel that while we rejoice in the coming season, it still behoves us to commiserate the poor. We are proud to think that we belong to a country where the cry of want has never been disregarded yet. The evil may be increasing and becoming more and more a question for the State to decide. Indeed, the inadequacy and inaptitude of our workhouse system were never more apparent than at the present moment. It never of late has fully answered the end for which it was enacted. It seems sinking down into a state of helpless decrepitude, unable to overcome the difficulties that lie in it's way. The whole subject of English parochial relief must ere long, as we think, again come under the supervision of the Government ; but, meanwhile, we doubt not that the acts of private charity, so long as they are needed, will be as prompt and munificent as ever. We close, therefore, with the compliments of the season, wishing our readers a "Merry Christmas and a Happy New Year"—all the merrier and happier from the consciousness of having helped to relieve the woes of humanity around them.

SUCCESSFUL REMOVAL OF THE ENTIRE SPLEEN.

We have much pleasure in calling the attention of our readers to M. Péan's successful case of excision of the spleen. A translation of the case from the pen of Dr. B. W. Foster, will be found in another part of our present number.

The readers of the Medical Press and Circular will recollect that this operation was first performed in the United Kingdom about two years since, by Mr. Spencer Wells. The patient died, however, five days after the operation. Mr. Bryant has also recently had an unsuccessful case. According to Dr. Wilks, who published a paper, recommending the operation, in vol. XI., of Guy's Hospital Reports, the spleen was removed for the first time from the human subject in the fifteenth century by Zaccarelli in Italy. The history of the case is defective, and there is no record of the ultimate result, although the healing of the wound is mentioned. For about three centuries no attempt appears to have been made to remove a diseased spleen, although many cases of its accidental removal in man are on record, and experiments on the lower animals pointed to the remarkable impunity with which excision of the organ could be performed in dogs. Germany has the credit of reviving the operation, although the two cases performed in the Fatherland were unsuccessful. Dr. Gustav Simon, of Darmstadt, published an account of these two cases in 1857 ; the first was operated on by Quittenbaumer in 1826, a mass of hypertrophied spleen weighing some nine pounds was removed, but the patient died in six hours. The second case occurred in the practice of Küchler. The tumour weighed three pounds, and the patient died a few hours after the operation. In Mr. Wells' case, the tumour weighed between five and six pounds. The successful case which now reaches us from Paris, is well worthy of attentive study, not only on account of the difficulties which attended the operation, but especially on account of the peculiar characters of the tumour, which obscured its nature and connections before the operation. The case is a very remarkable one, and we commend its study to our readers.

METROPOLITAN BOARD OF WORKS.

The report (1866-7) of the Metropolitan Board of Works, to which we have already briefly adverted, contains many important statements and suggestions. These we propose now to notice a little further.

Before describing the many transactions which have engaged their attention, the Board advert to the important works in connection with the main drainage, and to the fact that nearly the whole of those works which were commenced by them in the year 1859 are completed, and have been in operation for some time past. About 82 miles of sewers, in addition to the several pumping stations, have been constructed for the drainage of an area of about 117 square miles, embracing a population of nearly three millions. The sewage of that part of the area which lies on the north side of the Thames, and which is intercepted daily in its passage towards the river, amounts at present to about 10,000,000, and that on the south side to about 4,000,000 cubic feet. The question of increasing this drainage area has, during the year, been brought under attention by applications from various parishes and places immediately adjacent to the metropolis, seeking for permission to relieve their districts from the accumulating foul waters by draining them into the main intercepting system. The subject is one of considerable importance not only as affecting the applicants but the metropolitan ratepayers, and the Board have, therefore, referred it to a committee, with instructions to obtain information on the subject.

We have during the year frequently commented upon the great question of the purification of the Thames, and the fact that five of the water companies draw their supply from the Thames is, we think, sufficient to show the importance of ensuring the purity of the river, and the necessity which exists for

the utmost vigilance, combined with practical measures, for effecting that object.

The Board reported last year that a marked improvement had taken place in the condition of the river since the completion of the principal lines of the main drainage scheme, and we are glad to be informed that the number of fish now observed in the tidal parts of the Thames, and near London-bridge, show that this improvement is progressive. This, it is believed, will become more evident as the upland waters scour the river, and when the northern low-level sewer is completed, and the subsidiary main lines are improved and connected with the main intercepting channels.

There is reason to believe that the completion of the Thames embankment works will conduce to the greater purity of the river by quickening its flow and increasing its scouring power. In addition, a very important improvement will result from the conversion of the foul and unwholesome mud banks, by means of the embankment, into useful and ornamental thoroughfares.

Some time ago the Board urged upon Government the necessity of prohibiting the discharge of sewage into the Thames from any town or village above the metropolis. The Chairman of the Board also directed the attention of the Select Committee of the House of Commons, on metropolitan local government, to the same subject. He stated, "We have no control over any district beyond our area, and it is a matter which will require the attention of Parliament before long how far our public streams should be polluted by sewage. If we are called upon to improve our river at a cost of £4,200,000, I think it follows logically that Kingston and other towns should be called upon to purify their sewage, or we have a great injustice put upon us. No doubt we realise a great improvement in health by the course which has been adopted, and the result of the main drainage last year was to reduce the mortality by about 10 per cent."

As a result of the consideration which has been given to this subject, three Acts of Parliament have recently been passed directed to the object of the purification of the Thames.

The first is the Sewage Utilization Act, 1865. Its intention is to give powers to the local authorities of places without the metropolitan area, which are not governed by the Public Health Act and Local Government Act, to construct sewers for the drainage of towns, and to enter into contracts with a view to utilizing the sewage. It authorizes the authorities to take proceedings by indictment, bill in Chancery, action, or otherwise, for protecting watercourses from pollution by sewage, and it expressly forbids sewer authorities making sewers so as to drain direct into any stream or watercourse.

The second measure, the Thames Navigation Act, 1866, was introduced for the purpose of giving effect to the recommendations of the Commissioners appointed to inquire into the best means of preventing the pollution of rivers.

This Act, which vests the conservancy of the rivers Thames and Isis, from Staines in Middlesex to Cricklade, in the county of Wilts, in the Thames conservators, contains stringent clauses for preventing the pollution of the upper Thames by means of sewage, or otherwise.

The third Act having relation to this subject is "The Thames Purification Act, 1866."

Its preamble states that "Whereas under certain existing arrangements the sewage of towns situate on the River Thames above the metropolis is carried into the river, and thereby the waters of the river are polluted, and the health and comfort of the inhabitants of the valley of the river below those towns and the metropolis are affected,"—and it goes on to show that it would be of great local and public advantage if the sewage were to be diverted from the river, and that if it were diverted it might be utilized for the fertilization of land; and then follow provisions to give powers for the purification of the river by the diversion therefrom of the sewage of Oxford, Abingdon, Reading, Kingston, Richmond, Twickenham, Isleworth, and Brentford, and for the collection and utilization of that sewage.

Provision is thus made for diverting from the Thames the sewage of such places as Hampton, Chertsey, Staines, Eton, Windsor, Maidenhead, Marlow, Henley, Reading, Wallingford, Abingdon, Oxford, &c.

It has been frequently remarked that if the sewage of towns at a distance from the metropolis, is sufficiently diluted to have become innocuous before reaching London, this could not be said of Kingston, Teddington, Twickenham, Richmond, Isleworth, Brentford, Chiswick, Croydon, &c., the sewage of which would become greater year by year.

Yet to provide a complete system of interception for the whole of the towns and villages at present discharging into the basin of the Thames would impose an enormous burden on these places. It is, therefore, suggested that other solutions may be within the power of science.

The Board have again and again urged upon Parliament the importance of giving them some representation at the Thames Conservancy Board, but without effect.

A good deal has lately been written upon the utilization of sewage, so that our readers will naturally expect us to say something about the experiment that has been made under the auspices of the Board of Works. Our readers are aware that a concession of the northern sewage was granted to Messrs. Napier and Hope, the representatives of the Metropolis Sewage and Essex Reclamation Company, formed in accordance with the provisions of the "Metropolis Sewage and Essex Reclamation Act, 1865," which authorized the construction of the necessary culverts and works for the purpose of conveying the sewage from the works of the Board at Barking. Under their Act the Company commenced the formation of the culvert for taking the sewage down to the Maplin Sands, and for the distribution of so much of it as may be required by the farmers whose lands lie in proximity to the line of the culvert.

An experimental plot of about ten acres of land, adjacent to the Northern Outfall at Barking, was rented from the Board by the Company, for the purpose of forming artificial beds of Maplin Sand for testing the value of sewage irrigation on crops of a kind suitable for culture on the sands, their original intention being to confine the produce from the Maplin Sands to one description of crop—namely, grass, as at Craigentinny, of which they proposed to have many different varieties, some being suitable as food for cows, others for fattening cattle, and others for converting into hay. They also proposed to divide the area of the sands into dairy farms of convenient sizes, with a view to supplying the inhabitants of London with pure and wholesome milk and other dairy produce.

The report before us states that during the past year the Company have extended the range of their experiments, "in order to test more fully the value of the sewage applied to land. Wheat and mangolds, as well as grass, have been tried on the sand with considerable success. A farm of about 210 acres of poor land, with a gravelly subsoil, has also been leased by the Company, with the view of showing the value of sewage applied to crops on the ordinary irrigation system. Much of the land is extremely poor, with the subsoil coming in places almost to the surface. No manure, sheepfold, or fertiliser of any kind, it is stated, was used to put the land in condition for the seed. The surface was laid out with carriers along the highest lines through which the sewage runs from the tank receiving it from the pump, either into furrows and along the ridge lines of wide lands over which it is thus made to trickle, or into channels placed as concentric or contour lines, at intervals of ten or fifteen yards on the natural slope. By the first method ordinary water meadow irrigation is obtained, by the latter the process called catch-water irrigation.

"The principal crop grown is Italian rye grass, and it is stated that, on one piece which was sown in August, 1866, and which has received about 4000 tons of sewage per acre, the crops cut were as follows—8 tons per acre early in April, 10 tons in the middle of May, and about 12 tons in the week ending the 22nd of June. On other pieces the crops were even heavier.

"It appears, also, that great success has attended the growth of mangolds, potatoes, flax, lucerne, cabbage, celery, and strawberries. One of the most promising experiments, however, is in the case of a wheat crop; two parts of a field with a poor soil have been treated with sewage; in both, the stalks of the plants stand strong and thick, with ears plentiful and large, and the area of these plots and the other parts is clearly traceable by the state of the crops. The sewage, it appears, was poured upon them three or four times during the early growth of the crops.

"The Company are also making an experiment in cow-keeping, with a view to the requirements of the London market. Upwards of 250 milch cows are kept in sheds constructed on the most approved principles; the cows are fed on grass and other produce raised by means of irrigation on the farm; the daily consumption of the produce is of course considerable, but a large surplus of grass is left, and is supplied to horse-keepers in the metropolis."

Among many other interesting subjects noticed in this report, we may mention those of open spaces, parks, &c., contagious diseases, storage of dangerous substances, cattle plague, and ventilation. Of sewers, respecting which last there is in the appendix a very able report from Professor Miller, of King's College. We have, however, given so much space to this notice that we must defer the consideration of that learned professor's opinion to a future opportunity.

Notes on Current Topics.

The Public Health.

We find the last weekly record of the Registrar-General gives the annual rate of mortality as 29 per 1000 in London, 33 in Edinburgh, and 28 in Dublin; 23 in Bristol, 27 in Birmingham, 33 in Liverpool, 36 in Manchester, 30 in Salford, 28 in Sheffield, 24 in Leeds, 27 in Hull, 32 in Newcastle-upon-Tyne, and 33 in Glasgow.

The mortality of London during the week was 1700, being greater than in any week since last March. For the last four weeks the deaths registered have been 1426, 1588, 1588, and 1700. The deaths of persons under 20 years of age were 765, 835, 780, 832; from 20 to 40 years, 185, 192, 212, 221; from 40 to 60 years, 222, 261, 253, 278; and at 60 years of age and upwards, 254, 300, 343, 369, respectively.

Bronchitis proved fatal during the week to 311 persons; in the three preceding weeks the numbers were 205, 246, 288. The deaths last week from pneumonia were 151, from phthisis 175, and from diseases of the heart 67.

Two hundred and ninety-one deaths were registered from zymotic diseases, the corrected average number being 355. Twenty-four deaths occurred from small-pox, 40 from measles, 31 from scarlatina, 59 from whooping-cough, 44 from typhus, and 11 from diarrhœa.

For several weeks the mortality from measles has been above the average, and this disease would seem to be very widely distributed over the metropolis, as we know also from non-fatal cases the same conclusion must be drawn. Then we cannot forget that not a few deaths may be traced to measles, which are registered under other names, as this disease so often lights up others from which the victims perish. The mortality from whooping-cough has also been lately unusually high in London.

Scarlatina caused no less than 31 deaths in the week, of which 11 took place in the southern districts, where an epidemic seems to prevail.

On the whole, the public health is not so satisfactory as it was a short time since.

Nitro Glycerine.

The fearful accidents which have occurred from the explosion of this substance call for some further legislative enactment to prevent so highly dangerous a compound being recklessly transported from place to place as ordinary merchandise. Failing legislation, nothing remains but to diffuse a knowledge of its qualities by way of supplementing the lessons that have been offered by the explosions. It will not be forgotten that last year no less a quantity than seventy cases exploded at Aspinwall, the Atlantic terminus of the railway across the isthmus of Panama. The vessel containing them, of about 1700 tons burden, as well as another large ship lying alongside, was nearly destroyed. The freight-house, and 400 feet of the quay were demolished, above seventy persons were killed or injured, and the newspapers reported that there was not a single pane of glass in the city that was not broken.

Other explosions of lesser quantities have frequently occurred, and we cannot look upon the attempt to ship such a substance without proper precautions and instructions as otherwise than wilfully exposing human lives, as well as property, to the utmost danger. Gunpowder and gun-cotton are much less dangerous—indeed, there is no substance likely to be employed on a large scale, which, for destructive power, can be compared to nitro-glycerine. This is the reason that it is being employed for blasting purposes; but it is also a reason why life should be protected, by placing it under the most restrictive laws.

The terrible explosion at Newcastle last week exemplifies another point besides the dangerous nature of the substance, inasmuch as it took place while it was being destroyed, as it was hoped, in an efficient manner. The persons engaged in taking precautions for the lives of others sacrificed their own. It is idle to lament now that they were not more accurately informed as to its properties, and to show how much safer another mode of proceeding would have been. No doubt it would have been wiser to have largely diluted the oil with wood-spirit, and then poured it in the river at high tide, or to have filled it with fusees and exploded it from a safe distance, by means of a train, after the cans had been buried a dozen feet deep. But the one lesson for the public is the danger of this highly-explosive compound, and that lesson we are reluctant to weaken so soon after the catastrophe.

DECORATION OF AN ASSISTANT-SURGEON WITH THE VICTORIA CROSS.

War Office, December 17.

The Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross on the undermentioned officer and private soldiers of Her Majesty's army, whose claims to the same have been submitted for Her Majesty's approval, for their gallant conduct at the Little Andaman Island, as recorded against their names:—2nd Battalion, 24th Regiment—Assistant-Surgeon Campbell Millis Douglas, M.D., and Privates Thomas Murphy, James Cooper, David Bell, and William Griffiths, for the very gallant and daring manner in which, on the 7th of May, 1867, they risked their lives in manning a boat, and proceeding through a dangerous surf to the rescue of some of their comrades, who formed part of an expedition which had been sent to the island of Little Andaman, by order

of the Chief Commissioner of British Burmah, with the view of ascertaining the fate of the commander and seven of the crew of the ship Assam Valley, who had landed there, and were supposed to have been murdered by the natives.

The officer who commanded the troops on the occasion reports :—"About an hour later in the day Dr. Douglas, 2nd Battalion 24th Regiment, and the four privates referred to, gallantly manning the second gig, made their way through the surf almost to the shore, but finding their boat was half filled with water they retired. A second attempt made by Dr. Douglas and party proved successful, five of us being safely passed through the surf to the boats outside. A third and last trip got the whole of the party left on shore safe to the boats."

It is stated that Dr. Douglas accomplished those trips through the surf to the shore by no ordinary exertion. He stood in the bows of the boat, and worked her in an intrepid and seamanlike manner, cool to a degree, as if what he was then doing was an ordinary act of everyday life. The four privates behaved in an equally cool and collected manner, rowing through the roughest surf when the slightest hesitation or want of pluck on the part of anyone of them would have been attended with the gravest results. It is reported that seventeen officers and men were thus saved from what otherwise must have been a fearful risk, if not certainty of death.—*From the London Gazette.*

SURGICAL SOCIETY OF IRELAND.

Dr. Adams, President of the College, in the Chair.

The first meeting of the Surgical Society for the present session was held on Friday evening, December 6th, in the Albert Hall, Royal College of Surgeons.

DISEASED WRIST-BONES, TREATED BY CAUSTIC: AMPUTATION.

Mr. Morgan showed a specimen of diseased wrist-joint which had required amputation, notwithstanding much patient treatment in endeavouring to preserve the limb. He gave the following outline of the case:—A labourer, æt. 48, always of good health and condition, received an injury, by crushing of the wrist-joint, not of a very severe nature apparently at the time, which was seventeen months previous to the operation. From the receipt of the injury till his admission into hospital, the joint had been painful, and suffered at intervals from acute attacks. Suppuration took place, and two or three sinuses formed about ten weeks previous to his admission on the 13th September, 1867. At this date, the joint exhibited the well-marked characteristic signs of extensive disease of the carpus—grating was perceptible not only between the smaller bones, but between the radius and ulna, and metacarpal and carpal bones of thumb and little finger. As the man's health was pretty good, I thought best to try the effect of careful strapping, rest, and generous diet.

At the expiration of twelve days from admission, the use of caustic issue to the bones was tried as a further measure, three eschars were made, the marks of which are to be seen in the specimen, and their course traceable into the diseased structure, absolute rest and well-applied strapping still used. There was not much constitutional disturbance, though, as might be expected, when the influence of the chloroform had passed off, there was considerable pain. After a continuance of this treatment for thirteen days, the drains were retouched with the caustic to keep them fully open. The treatment steadily and carefully continued till November 8th, when there was no alternative but amputation, as the patient's health was yielding. The double flap operation was performed, the radial and ulnar arteries secured by the first method of acupressure with much care, and the needles removed in forty-nine hours. The parts healed most satisfactorily.

The parts exhibited, showed extensive destruction of the carpal bones, and partially of the metacarpal. The three burrows caused by the caustic, were traceable in the diseased bone structure.

Dr. F. Kirkpatrick said it was quite manifest that the plan of treatment he had proposed for diseased joints by caustic could only be applicable where you could burn out the disease. They all knew that in many of those cases of excision, when the disease had lasted a long time, an examination of the joint after excision revealed that the amount of disease which existed was very small. Now what he proposed was to burn out the diseased portion by caustic. If by means of a probe he found a carious portion, he would cut down to it and burn out the disease. If enough were not done at first, the operation could be repeated. In a great number of cases he had done this without any injurious consequences. The inflammation that followed was trifling, and the action that followed was of the nature of repair. The preparation he used was caustic soda, which being less deliquescent than other preparations was not so liable to spread.

Mr. Wharton said that he had visited several of Dr. Kirkpatrick's cases in the North Union Workhouse. One was a case of a diseased knee-joint. Dr. Kirkpatrick had freely made his way into the joint with caustic, and at the time he (Mr. Wharton) saw the man he was able to walk well about the ward. There were several other cases under treatment at the same time. He also saw the man whom Dr. Kirkpatrick exhibited to the society last session, in which case he had bored into the trochanter.

Mr. Barton observed that he had treated several cases on Dr. Kirkpatrick's plan; and he thought his observation with regard to the cases in which it was useful, and those not adopted for it, was quite borne out by experience. Where there was extensive disease it was not a suitable plan, but where there was a limited amount of disease the plan of treatment by caustic was thoroughly successful. One case which came under his observation was a case of very extensive disease of the knee-joint—so extensive that there seemed to be nothing for it but amputation. Unwilling to cut the leg off he asked Dr. Kirkpatrick to see the case, and they carried out his plan together. The caustic was thoroughly applied on several occasions, and produced little constitutional disturbance with regard to the result. The joint was now after many months in a state of partial anchylosis, flexed, and of very little use; and it appeared to him it would have been better to have cut it off. The boy's life was not in danger, but the limb was entirely useless. That was a case not suitable for Dr. Kirkpatrick's plan; yet the caustic had been applied without danger. The cases in which it was calculated to be useful were cases of slight caries, rather superficial, and which could be readily reached. In one case of caries of the first bone of the thumb in a little boy, being unwilling to cut off the thumb he burned it through, and after a length of time it had healed remarkably well. He could mention other cases of the same kind.

Mr. Collis said he had in several cases himself used the plan proposed by Dr. Kirkpatrick. He agreed with Dr. Barton that this method of treatment was useful in cases of caries tolerably superficial; but he believed if the caries were deep they should resort to the method used by Mr. Teale, and other eminent surgeons; namely, to cut down to the bone, bore through the infiltrated tissue, or as Chassignac had done, drain it. Mr. Teale had sent him three instruments which he would have brought to the meeting had he anticipated that this subject would have been brought before them that night. They were a modification of a common carpenter's augur, and had been in use in Leeds for years. Mr. Teale having heard Dr. Kirkpatrick's paper read at the British Medical Association, and heard some observations which he (Mr. Collis) had made upon it, had sent him the instruments to which he referred.

Mr. Stokes asked how they were to determine between those cases in which the method of treatment would be beneficial, and those in which it could do no good? Mr. Collis spoke of superficial caries; but he did not see how such an expression could be properly used, considering that caries generally commenced in the cancellated structure of the bone. He had seen two cases in which this method of treatment was tried. One was a case, in Steevens' Hospital, of extreme disease of the ankle-joint. He followed that case with great care, and he could fully bear out what Mr. Collis and Mr. Barton had said as regards the non-occurrence of great constitutional disturbance after the use of caustic. Each application of it, however, was attended with extreme pain, and he had learned from Mr. Collis that the patient had left the hospital in very much the same state as when he came into it. He did not think it could be said that this method of treatment would ever supersede the excision of joints.

Mr. Collis explained that by superficial caries, he meant caries of the superficial bones.

Mr. Stapleton said there seemed to be some confusion as to the term boring into a joint. He only looked upon an articulation as such, before it was disorganised.

Mr. Morgan said he had seen the cases that Dr. Barton referred to, and agreed with his remarks; but in the present case it was not very easy to tell whether the disease

was or was not extensive, and therefore he thought it right to try the method suggested by Dr. Kirkpatrick. Of course, the man was chloroformed, and he did not suffer much pain when the caustic was applied, although it was afterwards severe.

Dr. KIRKPATRICK said he had seen the case alluded to in Steevens' Hospital but twice; and in the interval, the man was cured of disease of the ribs, of the great trochanter, and the ankle-joint was much improved.

Mr. COLLIS observed that, after the operation, the patient certainly appeared to be much improved; but the treatment was not persevered in, and the man left the hospital uncured.

TRICHINÆ AND CYSTIRCI IN HUMAN MUSCLE.

Mr. E. HAMILTON exhibited, under the microscope, portions of two gastrocnemii muscles, one infested with trichinæ, the other with cysticerci cellulosæ.

REPORT ON WINE.

[SPECIALLY PREPARED FOR THE MEDICAL PRESS AND CIRCULAR.]

VI. PORT—CONCLUDED.

(Continued from page 557.)

THE approach of the New Year reminds us that in the length to which we have allowed our Reports on Port to run, we have incurred a certain risk of wearying some readers who may be impatient to hear the results of our investigations into other sorts of wine. We think, therefore, that it may be as well, in this, the last number of this year, to draw the subject of port to a conclusion in order to leave us the opportunity of beginning a fresh subject in the next volume. In doing so we shall only very briefly sum up the question as far as we have gone. It is necessary to postpone the great points of the chemistry and dietetic value of wine until we have investigated the nature of more than one beverage sold under this name, as, by so doing, we may avoid a good deal of repetition.

For the sake then of those who have only followed us with a languid interest through the discussions into which we have been led, let us sum up some only of the most obvious results of the enquiry as far as it has yet gone.

First of all, it is clear that only one opinion can be formed as to what port, as known in England, really is—viz., it ought not to be called wine at all, but a *liqueur*. We find also that if the wine was perfectly fermented it would be admissable at the 1s. duty, as the highest known strength of perfectly-fermented port, according to Government returns, contains but 25°·9 proof spirit. One incident in the mode of manufacture, as told by Mr. Crawford, and printed in a former article, is, perhaps, worth repeating: It is usual for *as many men as possible to get in the stone vat* (or lagar) and *tread the grapes from twenty to thirty hours*. The grape-juice is then run off, and after slightly fermenting, spirit is added, and the product of grain and roots imported from England and Germany (*vide* article) to check further fermentation, whereby the sweetness of the grape-juice is retained, and the proper and most healthful acidity of the tartratis is masked, thus giving a fallacious character to the product. The period of adding spirit during the early stages of fermentation rests with the *manufacturer*, but the eventual result is a product which, by the addition of spirit, is brought up to 38°·0 to 42°·0 proof spirit. How far such a product can be called preserved wine, as has recently been stated, we leave to the understanding of our readers. We cannot but think that to call such a liquid wine is, in one sense, a misnomer. Be that as it may, the result is a beverage, that unfortunately has been looked upon as so valuable, so worthy of regard, and so identified with our earliest notions of what wine should be, that every kind of wine has been manufactured to resemble it, as witness Rousillon, Masdeu, Tarragona, and the fictitious wines of Cette. As regards the habitual use of such beverages, it may well be that its effects upon the healthy is to produce disease, of which gout has long been recognised as an example. As to the unhealthy, it is positively injurious, and should a stimulus be requisite, it would be far more beneficial to prescribe dilute alcohol in preference than this hitherto called generous and strengthening compound. If these conclusions are correct, to encourage the use of such compounds as are now manufactured is immoral, as tendi ng to induce and perpetuate disease, to form and create a taste for an idea of wine, which it is not, and thus to become, in consequence of our ignorance and stupidity, the prey of every wine manipulator, and the laughing-stock of the people of every wine-growing country.

DR. EADES, OF MELBOURNE.

THE *Melbourne Argus*, in terms of condolence, records the death of Dr. Eades, of that city:—

"The deceased gentleman was so widely known, so universally esteemed in his social, public, and scientific capacities, and withal will be so much missed in the various spheres of usefulness in which he moved, that his loss will be felt to be a public one. He was born in Dublin in 1809, being the son of a wine merchant of that city. He entered at Trinity College, and his career there was an honourable one, for he took the degrees of master of arts and bachelor of medicine. To complete his studies, he spent some time at Paris, where he was a pupil of Orfila, the founder of modern toxicology, and other celebrated professors. After a tour through the Continent, he sailed for America in charge of an emigrant ship, and on his return voyage narrowly escaped shipwreck. This was about the year 1833, when he established himself in Dublin, not only in successful practice, but as lecturer upon materia medica and medical botany to the Richmond, and also to other medical schools, where his reputation for professional and general scientific acquirements stood very high. In 1849 he was induced to emigrate, and went to Adelaide in a ship containing female emigrants, of whom he had medical charge. In 1851 he arrived in Melbourne, and shortly found himself in the possession of a lucrative practice. Always desirous of being useful in public affairs, he was elected town councillor of the City of Melbourne in 1855, and succeeded Alderman Clowes in the higher office in 1857. In 1859-60, he held the position of mayor and chief magistrate of the city, which post he filled with great credit to himself, having always distinguished himself in his character as justice of the peace. In 1865 he resigned his aldermanship, and upon the death of Dr. Macadam, accepted the post of health officer to the city, which he held till his death. To name the different honourable offices held by Dr. Eades would require more space than we have at our disposal, but we may mention a few. In 1857 he took an *ad eundem* degree at the Melbourne University, with which he was subsequently connected as lecturer upon *materia medica*, therapeutics, and medical botany. He was for many years honorary physician of the Melbourne Hospital. During the earlier stages of the history of the Philosophical Society, afterwards named the Royal Society of Victoria, Dr. Eades signalised himself by his endeavours to promote its interests, and was one of its most accomplished members. When the Royal Society sent Burke and Wills on the "Victorian Exploration Expedition," he was mayor of the city, and was about the last to wish them "God Speed," as they started from Royal Park. He was also assistant-surgeon of volunteers, Government official visitor to the Yarra Bend Lunatic Asylum, and as very many know, a generous and warm-hearted friend to the poor, being never backward in giving pecuniary and professional assistance when called upon. Some months since he was visited with a severe illness, from which he never really recovered. He afterwards appeared, however, to have pretty fair health, and dined out on Friday night, but on his return home to Prahran, where he had lately resided, he was taken suddenly ill, and died on Saturday evening at the age of 58. The deceased was married twice, and leaves a large family.

It is to pay but a small tribute to the character of Dr. Eades to repeat the hackneyed phrase, that he died universally regretted. Few men have had so many friends, and few have met with so little in the way of unfriendliness. He embodied in its most marked manifestations the quality of geniality. He may be said to have been a living representative of *bonhommie*. He lived in an atmosphere of kindness, and it was impossible to be in his society for five minutes without feeling that the existence of such men as he should be accounted a social bless-

ing. His happy, cheerful disposition was contagious, and whether you knew him as a physician, a savant, a magistrate, or a friend, you were equally pleased and satisfied with him. He was that rarest of rare things in this not too polished community—a gentleman; and his fastidious avoidance of anything tending to wound or distress others was one of his most prominent characteristics. He will be followed to his grave tomorrow by hundreds who have known and admired him, and we may safely assert that, among all the crowd who gather round his last narrow resting-place, not one but will feel that our Australian world has suffered an irreparable loss in the death of Dr. Eades."

Correspondence.

A MEDICO-LEGAL ENIGMA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—W. G., a healthy man, 55 years old, was found in a drain in his own field, on 24th instant. The drain is three feet deep, and three and a-half wide. The water is nearly on a level with the field, which is a sound, level pasture one. It is two hundred yards off the bye-road leading to his house, where it was supposed he was returning to, at nine P.M., on the 24th instant. The body was in the water, face downwards; the legs on the land.

Forty-one hours after death the face had a life-like appearance; the veins of the neck swollen; the eyes straight; arms and wrist slightly bent inwards and gorse skinned; hands nearly clenched; body pale and smooth, legs the same; half the left eye lower lid was black; the knee was slightly bruised. There were no other outward marks on him.

The weeds, which are thick in the drain, were not disturbed except by the falling of the body into the water. A medical gentleman held a post-mortem examination, and said that there was a quantity of fluid blood in the brain; that death arose from suffocation from immersion in water.—Was this death accidental, sudden, or otherwise?

The trowsers and drawers (shoes and stockings also), were dry from mid-way between the fork and knees downwards. The rest of the clothes were quite wet.—Yours truly,

NON-PROFESSIONAL.

November, 1867.

THE APOTHECARIES' COMPANY OF IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Having carefully read the replies of *Pro Bono Publico* and Dr. Leet to my former letter, and also your own excellent article on the subject, perhaps I may have the privilege of a brief answer. First, then, *Pro Bono Publico* implies at least that I have objected to the L.A.H. practising; if he will refer to my former letter he will see that at this I not only did not object to, but expressly conceded, provided he had not the power in fact, if not in name, of preventing others from practising also. Secondly, he seems to think that I am not aware that the company require a course of study and institute an examination for their licence. But I am not only aware of this, but also of the fact that although the court examines in anatomy, medicine, surgery, chemistry, botany, physiology, and pathology, yet there is not a single member of that court of examiners who either is, or ever has been, a teacher in any one of these subjects in any hospital or medical school. Yet every one admits that, both as regards our professional studies, and all other branches of knowledge, the very first and most essential qualification of an examiner is that he shall be a public teacher of the subject in which he examines. How can men engaged in the daily routine of counter-practice keep abreast of the medical science of the present day in its vast and rapid development? Since *Pro Bono Publico* has challenged an expression of opinion on this point, I must say that these gentlemen, however worthy and skilful in their own walk in life, are not competent examiners of candidates for a licence to practice medicine. Thirdly, what I did object to was the L.A.H.'s monopoly of pharmacy. I do not see that anatomy or hospital study add anything to a man's skill in that business, rather these studies, and the practice which he seeks in virtue of them, serve to distract his attention from pharmacy, which, as I said in my last, is in these days quite wide enough in itself for one man's mind.

Hence I should be very sorry to see compounding delegated to grocers or other ignorant persons, and undoubtedly the English custom has, until recently, been too lax in this respect; but we certainly cannot consider the members of the Pharmaceutical Society of England to be ignorant or unqualified persons, seeing that they are taught and examined in chemistry, pharmacy, botany, materia medica, and laboratory analysis and work, by such men as Professors Redwood, Bentley and Attfield, men more competent, I should suppose, to give such instruction, and conduct such examination, than the owners of the apothecaries' shops in this country can be, for the Apothecaries' Hall in its corporate capacity employs no professors, has no laboratory for students, and gives them no instruction. As regards your own proposal that every registered practitioner should be allowed to compound, the Colleges of Physicians and Surgeons certainly would not allow the licentiates and fellows respectively to adopt the suggestion; and these are, I conceive, serious objections in any case to having a man's prescriptions compounded by his avowed rival practitioner; moreover, this would not effect that separation between medicine and pharmacy which seems to be rendered necessary by the vast development of both.

I cannot but think that the true solution of the difficulty would be found in permitting the chemists to compound on becoming members of the Pharmaceutical Society. The days of monopolies are over; this last relic must soon go too; let the apothecaries show that they deserve the confidence of the public better than the chemists do, and they will obtain it without the protection of a monopoly. The interest of the public certainly is to abolish this monopoly with all the rest; there is none in the practice of medicine; a man consults a quack if he pleases, and they share the responsibility of malpractice between them. As regards Dr. Leet's statement that the apothecaries were always practitioners of medicine, they certainly were not recognised as such by either the Army, Navy, or Poor-law Boards, until within the last ten years; of course they had practice in private; so very often have chemists now. This, however, is past; they are now confessedly within the ranks of the profession; it behoves them therefore to give up a trade monopoly, otherwise they degrade the profession of which they are now members to the trade level, and place themselves in a rank much below that of the English apothecary. What I propose is, after all, the course which will most tend to raise their licentiates in the esteem of the profession and the public. The Act of 1858 does not, as Dr. Leet states, permit physicians to charge for medicines, nor indeed for advice or visits either; it expressly permits the defendant in such an action to plead the bye-law of the College of Physicians in bar of proceedings.—I am, sir,

ANTI-MONOPOLIST.

NOTE ON THE PRUNUS VIRGINIANA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In Dr. Hayden's interesting report of cases of cardiac disease treated at the Mater Misericordiæ Hospital (page 468 of MEDICAL PRESS AND CIRCULAR), the *Prunus Virginiana*, or American wild cherry, is spoken of as a remedy "lately introduced by Dr. Allbutt, of Leeds." Now, although to Dr. Allbutt is due the credit of having brought into more prominent notice a medicine, the powers of which were but imperfectly recognized and appreciated. yet as long ago as 1856, I have seen the "Infus. Pruni Virginianæ" prescribed by the late Dr. Todd, of King's College, and I have myself used it since the year 1862 in just those cases in which the experience of Drs. Allbutt and Hayden leads them to consider its remedial properties best displayed.

The medicine is prepared, in great perfection, by Messrs. Warner & Co., of Fore-street, and they have for some time been in the habit (as I understand) of supplying the preparation to medical practitioners. It is needless for me to say anything here of the therapeutic powers of the drug, but I believe the fresh infusion is the best form in which to administer it.—I am, obediently yours,

JOHN C. THOROWGOOD, M.D., M.R.C.P.

61, Welbeck-street, London, W.

Modern Greek fire is a solution of phosphorous in bisulphide of carbon. The latter substance volatilises rapidly, and leaves the phosphorous in so minutely divided a state as to insure its combustion. Bisulphide of carbon is also itself highly inflammable. Like its prototype, when ignited, water does not extinguish the modern Greek fire, but a solution of soap leys or soda puts it out directly.—*Medical Times.*

Gleanings.

DECORATED JOURNALISTS.—The *Presse* of Vienna publishes the following notification:—The Emperor Francis Joseph has conferred the following decorations on the Paris journalists whose names are given:—M. Paulin Limayrac, of the *Constitutionnel*, Order of the Iron Crown, second class; MM. Norbert-Billart, director of the *Moniteur*, Cucheval-Clarigny, of the *Presse*, and Lebey and Dréolle, of the *Patrie*, the Cross of Commander of the Order of Francis Joseph; MM. Vitu, of the *Etendard*, Edouard Simon, *Constitutionnel*, de la Ponterief, *Presse*, Escudier, *France*, and Vilbort, *Siècle*, Order of the Iron Crown, third class; MM. Valfrey, *Memorial Diplomatique*, Dr. Landsberg, *Correspondence Francaise*, Cohen, *France*, Malespine, *Opinion Nationale*, and Théophile Gautier, *Moniteur*, Knights of the Order of Francis Joseph."

ON EXPRESSION OF THE FŒTUS.—BY D. KRISTELLER.—Dr. Kristeller, quoting a paper by V. Ritgen on "Delivery by Pressure instead of by Extraction," advocates the use of this method in certain cases of inaction of the uterus. He says it has the advantage over extraction of not requiring the premature rupture of the membranes, of not disturbing the flexion of the fœtal-chin upon breast, or limbs upon trunk, or of bringing the uterus into correct relation with the axis of the pelvic brim. It is executed by placing the patient on her back, the operator spreading his hands upon the uterus, so that the palms shall be able to compress the fundus downwards, whilst the thumbs and fingers shall compress the uterus on the sides. The pressure is made to resemble the course of a natural contraction in its progress and periodicity. It may require to be repeated fifteen or twenty times. If more than this is necessary the case is unfit for the operation. Expression, or "squeezing out," of course, will often excite uterine action, which will help the operator. Expression is also most useful in aid of extraction, as, when the forceps is used, Kristeller relates cases in proof of the value of his method.—*Monætsschr. f. Geburtsk.*

BATHS ON THE RHINE.—If you are unable to swim, and wish to indulge in a river bath, you are shown into a tastefully decorated room, in the floor of which is an opening of the form and size of an ordinary bath. Through this opening the water flows. You walk down the steps into a sort of cage, where you lie at your ease on a well-contrived wooden couch while the water passes over you. After bathing you can get a very good cup of coffee on board the barge, where there is also generally a reading-room well supplied with the newspapers of the day. Why should not some such barge as this be moored off Brighton and other sea-side towns in England? It would surely be a great improvement upon our present system of bathing, which is so loudly deprecated, without anything being done to alter it. The floating bath could be easily made accessible from the shore and taken into dock during rough weather. At Trieste there is one, the success of which sufficiently proves its practicability in the open sea. At all events, the suggestion is worthy the attention of the town councils of those places in England which have acquired such an unenviable reputation for the incompleteness of their bathing arrangements.—*Once a Week.*

ON THE MECHANISM OF LABOUR.—By Dr. APIEGELBERG.—The author contends that the *transverse* position of the head at the brim of the pelvis is more frequent than the oblique. In 700 normal cases observed he found 570 heads in the transverse diameter; in an oblique diameter only 130 heads. The child's back lies to one side of the mother; the head with its sagittal suture in the longest or transverse diameter of the pelvis. If the transverse diameter of the uterus and of the brim are parallel, the sagittal suture enters transversely; if the transverse diameter of the uterus lies in an oblique diameter of the pelvis, the head will enter the brim in this direction. The uterus, in addition to its common inclination to one side (Dubois), is sometimes twisted a little on its axis in the direction of its inclination. In whatever direction the head enters the pelvis, in that will it be driven into the cavity; and will only make its rotation on its vertical axis in the lower half of the pelvis.—*Mon. f. Geb.*

AN ingenious and useful stand, for carrying a microscope and the lamp used with it, has been constructed by Mr. Collins, of Titchfield-street, for Dr. L. W. Sedgwick. We wonder the idea has not been carried out before. It is somewhat of a modification of Messrs. Loam and Fearns's microscope table. It consists simply of a stand of mahogany placed on three rollers, and having a rod at its side to which the lamp may be firmly clamped. Its advantage is obvious. When working the student may push away the lamp and microscope without disturbing their co-adaptation, and when a specimen is ready for observation, the microscope-mirror requires no new focussing.

Medical News.

PUBLIC INSTITUTIONS OF LONDON.—The *Times* states that of every 1000 deaths registered in London last year 65 occurred in one or other of the 35 metropolitan hospitals. Of the deaths in these excellent institutions 3813, or 47 per 1000 of the total deaths of London, occurred in the 16 general hospitals; 1167, or 15 per 1000, in eight hospitals for special diseases; 72, or 1 per 1000, in four lying-in hospitals; and 146, or 2 per 1000, in seven military and naval hospitals. A certain number of the persons who died in the metropolitan hospitals came from other parts, and certain numbers contracted diseases in the wards; but these cases, probably, did no more than compensate for the residents of London who left it consumptive to die elsewhere. There were, also, three hospitals and asylums for foreigners, in which 96 deaths occurred, being in the proportion of 1 per 1000 of the total deaths; 195 deaths, or 2 per 1000, took place in four military and naval asylums. In the 19 lunatic asylums 382 deaths were registered last year, being in the proportion of 5 to every 1000 deaths; but two large lunatic asylums, Hanwell and Colney-hatch, in which many London lunatics die, are beyond the precincts of the metropolis. In the 46 metropolitan workhouses there were 7088 deaths, or 88 out of every 1000 deaths in London occurred among the inmates of workhouses. Thus, the total deaths last year in the 119 metropolitan public institutions were 13,054, or, in other words, of every 1000 deaths in London 162 occurred in public institutions.

UNIVERSITY OF DUBLIN—WINTER COMMENCEMENTS—DECEMBER 18, 1867.—Names of graduates in Medicine and Surgery: *Baccalaurei in Medicinâ.*—Franciscus Georgius Adye Curran, Henricus Nathaniel Dudley, Thomas Faris, Gulielmus Geoghegan, Fredericus Ferdinandus Hill, Gualterus Georgius Smith, Johannes Todhunter, Georgius Rodericus Triphook, Johannes Walker. *Magistri in Chirurgiâ.*—Gulielmus Talbot Burr, Georgius Edvardus Dobson, Gulielmus Geoghegan, Johannes Walker. *Licentiatus in Medicinâ.*—Browne, Nesbitt.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Names of Candidates who passed the Major Examination as Pharmaceutical Chemists:—Agnew Ernest James, Southsea; Bulgin William, Blandford; Daniel Silas, Holsworthy; Dunkley Edward, Northampton; Jefferson Thomas, Cambridge; Steel Frank William, London.

BEQUESTS.—Miss Tattingham of Harley-street, recently deceased, has bequeathed £500 each to the following medical charities:—The Middlesex Hospital, the Royal Medical Benevolent College, the Convalescent Institution, the Asylum for Idiots; and £300 to the Royal Orthopædic Hospital. The bequests of this lady to other institutions, not medical, range from sums of £5000 to £200 each, representing in the whole the large sum of £26,000.

PORTRAIT OF THE LATE DR. JOSEPH POULTER MACKESY, OF WATERFORD.—We have had much pleasure in paying a visit to the studio of Mr. Catterson Smith, where the friends of the late Dr. Joseph Poulter Mackesy may see a beautiful life-size portrait of that lamented gentleman. The citizens of Waterford are about to place this portrait in their City Hall; and they are further about to place a bust of Dr. Joseph Mackesy in the Leper Hospital; and a monument to his memory in Waterford Cathedral.

BURSTING OF A RESERVOIR.—AN alarming and destructive accident occurred in Kelso on Saturday night. The town is supplied with water from a large iron tank or reservoir, capable of containing about 60,000 gallons, and this is

raised on massive stone walls to a height of 60 or 70 feet. Into this tank the water is pumped by a steam-engine, and on Saturday night it was filled, no one supposing there was any danger. The man in charge had not long left the place when a loud report was heard, caused by the bursting of the tank, and the water rushed out in a torrent, carrying all before it. A dwelling-house close by was completely shattered, but the inmates, with the exception of a daughter of the proprietor, escaped. The young woman, however, is so severely injured, that her recovery is doubtful. She was so completely buried among a mass of rubbish that it was an hour before she could be extricated. A medical examination showed that she had received cuts and bruises all over the body, and that her left thigh was broken. Several persons narrowly escaped being carried away by the rushing water. The damage to property is considerable, besides the inconvenience that will be felt in the town till arrangements can be made for a fresh supply of water. It is not yet known where the blame lies, if blame there be. The sides of the tank were nearly an inch in thickness, and it seemed quite secure. The authorities will doubtless make a searching investigation into the occurrence.—*Edinburgh Courant.*

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, only on one side of the paper, and *must be* in the hands of the Printer eight days previous to their appearing.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

T. AND G.—We fear you will not be able to procure numbers so far back as 1847. We cannot supply them, having but our file-copies preserved.

F. E.—The second address is fictitious, the name is upon the door; but upon inquiry, we found the privilege of receiving letters there was purchased at very small cost.

M.R.C.S.—We think it advisable not to insert your letter at present, the case is under consideration at the College of Surgeons, and the publication of your communication might be prejudicial to the gentleman concerned.

Received, at 3 Lincoln-place, an envelope with black border, post-office mark "Cork, December 19," containing P.O.O. for 15s. Sender will please forward his name and address.

Communications, &c., have been received from Dr. Edwards Crisp, London; Dr. Davies, Newport; Dr. Cockcroft, Colne; Dr. Clayworth, Philsby; the Inspector General of Hospitals; J. Craig, Esq., Northampton; Dr. Chapham, Devizes; W. Pilkington, Esq., Clayton-le-Moors; Dr. Carter, Leamington; Dr. Cade, Spondon; Thomas Chapman, Esq., Ampthill; Mr. Robertson, Marton; Mr. Freeman, Kennington; Hy. Cartmel, Esq., Manchester; Sir Henry Coope, Hull; J. B. Liddall, Esq., Bristol; Dr. Cann, Dawlish; Dr. Colledge, Cheltenham; Robertson and Scott, Edinburgh (with enclosure); Dr. Cass, Eccleston-square; Dr. Caldwell, Liverpool; Dr. Davies, Hertford; J. C. Davie, Esq., Haddenham; Dr. Panton, Dorchester (with enclosure); Dr. Downe, Stockport; R. Griffen, Esq., Weymouth; Dr. Casanora, Bayonne, France; J. Hambden, Esq., Grimsley; George Lade, Esq., Lynn; V. H. Pyle, Esq., Earsdom; John Churchill, Esq., Whitehaven; J. B. Collyns, Esq., Dulverton; the Edinburgh University; W. Coathupe, Esq., Tredegar; J. Davidson, Esq., Erith; Dr. Charles Bennett, Tregony; Hy. Duncan, Esq., New Zealand; Dr. Horner, Chester; W. R. Davey, Esq., Worthing; F. Corbould, Esq., Penge; F. Dale, Esq., Yarm; Dr. Coilin, Guernsey; Dr. Johnson, Charrington-street; Dr. Hoblyn, Bath (with enclosure); J. Darnel, Esq., Ramsgate; the Registrar-General; Mr. Deering, Dublin; Dr. Smith, Manchester; Dr. J. Wilson, Castleton (with enclosure); Dr. Price, Holyhead (with enclosure); Dr. Chavasse, Birmingham; W. Daniell, Esq., Nayland.

We have also to acknowledge from subscribers and friends to the journal the receipt of:—The Parochial Critic, the Wellington Independent, the Spectator, the Hastings Observer, the York Herald, the Greenwich Chronicle, the London Scotsman, the Standard (marked), &c., &c.

Also from Messrs. Best and Son, Henrietta-street, sample bottles of iodine water, from the Woodhall Spa, Horncastle.

BOOKS AND PAMPHLETS, &c., RECEIVED.

The Climate of Worthing. By W. Goodyer Barker, M.B. London: John Churchill and Sons.

Oasis de l'Enfance. Par le Dr. J. B. Bereins. Paris.

The Woodhall or Iodine Spa. By Robert Cuffe, M.R.C.S. London: H. K. Lewis, Gower-street.

On the Pathology and Treatment of Albuminuria. By W. H. Dickinson, M.D. Cantab. London: Longmans, Green, and Co.

The Therapeutic Properties of Carbolic Acid. By F. Grace Calvert, F.R.S.

On Carbolic or Phenic Acid. *Ibid.*

The Pacific Medical and Surgical Journal.

The Visiting List for 1868. London: John Smith and Co., Long-Acre.

Letts's Appointment Diary for 1868.

Hanover Square for December 1867.

The Tomahawk Almanac for 1868.

Journal of Cutaneous Medicine. Vol. I., No. 4. London: Churchill and Sons.

Births, Marriages, and Deaths.

BIRTHS.

BIRD.—On December 14, at Gillygate, York, the wife of William Bird, M.R.C.S., of a son.

BLADES.—On December 16, at 171, Kennington-park-road, S., the wife of C. C. Blades, M.D., of a son.

DAVIDSON.—On December 15, at Cork, the wife of W. A. Davidson, Surgeon 65th Regiment, of a daughter.

SMITH.—On December 16, at Bella Vista, Eliott-hill, Blackheath, the wife of Dr. F. H. Smith, of a son.

STEVENSON.—On December 16, at 51, Wimpole-street, Cavendish-square, the wife of N. Stevenson, M.R.C.S.E., of a son, prematurely.

TODMAN.—On October 20, at Port Elliot, South Australia, the wife of J. Todman, M.D., of a son.

WRENCH.—On December 16, at Park Lodge, near Chatsworth, the wife of E. M. Wrench, M.R.C.S.E., LL.D., of a son.

MARRIAGES.

PALMER—COLLINS.—On December 11, at the parish church, St. Bees, Cumberland, C. Palmer, L.R.C.P., &c., to Mary Louisa, second daughter of H. Collins, Esq., of Kundallah, St. Bees.

PICKERING—LE COUTEUR.—On December 11, at the residence of the bride, St. John's Manor, Jersey, T. W. Pickering, L.R.C.S.I., L.K.Q.C.P.I., Army Medical Staff, to Florence Elizabeth Mary, eldest daughter of F. J. Le Couteur, Esq., Lieut.-Colonel R. J. M.

DEATHS.

BODINGTON.—On December 11, at Sutton, Coldfield, Caroline Mary, wife of George Fowler Bodington, M.R.C.P.

DAUBENY.—On December 13, at the Botanic Gardens, Oxford, C. G. B. Daubeny, M.D., F.R.S., &c., aged 72.

Advertisements.

NOTICE TO ADVERTISERS.

The Medical Press and Circular

OFFERS UNUSUAL ADVANTAGES

FOR the Insertion of announcements from its extensive and largely increasing circulation in each of the three divisions of the United Kingdom and the Colonies. Being also supplied to the Hospital Libraries, &c., it will be found a most valuable medium for Advertisements of Books, Vacancies and Appointments, Sales, and Transfers of Practices, Surgical Instruments, Chemicals, and Trades generally.

The scale of charges is as follows:—

Seven lines and under	£0	3s.	6d.
Per line afterwards	0	0s.	6d.
One-quarter page	1	0s.	0d.
Half ,,	1	15s.	0d.
One ,,	3	0s.	0d.

The average of words per line is twelve.

When advertisements are given for a series of insertions, a very considerable reduction from the above scale is made.

☞ Advertisements for Insertion in this Journal must be at the OFFICE, on MONDAY, by THREE O'CLOCK.

DRAINAGE REFORM.

ST. LEONARD'S-ON-SEA [WEST].

THE New System of DRAINAGE perfected for ST. LEONARD'S proper, by Mr. Bazalgette, C.E., has been in working order since July.

The SEA and BEACH are now Free from Impurities.

DISEASES OF THE EYE AND EAR.

DR. ARCHIBALD H. JACOB will Deliver, during the present Session, a full Course of Lectures on the Diseases of the Eye and Ear, and the Operations necessary for their Treatment, at the City of Dublin Hospital.

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